FOURTH FIVE-YEAR REVIEW REPORT FOR PINETTE'S SALVAGE YARD SUPERFUND SITE AROOSTOOK COUNTY, MAINE

Prepared by

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09/23/15

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Date

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LIST OF ACRONYMS

ARAR	Applicable or Relevant and Appropriate Requirement
ATSDR	Agency for Toxic Substance and Disease Registry
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CIC	Community Involvement Coordinator
CLP	Contract Laboratory Program
DOT	Department of Transportation
DRI	Deletion Remedial Investigation
EPA	United States Environmental Protection Agency
ESD	Explanation of Significant Differences
FS	Feasibility Study
FYR	Five-Year Review
GC/ECD	Gas Chromatography/Electron Capture Detector
GC/MS	Gas Chromatography/Mass Spectroscopy
HRGC/MS	High Resolution Gas Chromatography/Mass Spectroscopy
ICs	Institutional Controls
IRA	Immediate Removal Action
Kg	kilogram
L	liter
LRGC/MS	Low Resolution Gas Chromatography/Mass Spectroscopy
MCLs	Maximum Contaminant Levels
MCLGs	Maximum Contaminant Level Goals
MEDEP	Maine Department of Environmental Protection
MEG	Maximum Exposure Guideline
MOM	Management of Migration
MTBE	Methyl-tert-butyl-ether
mg	milligram
NCP	National Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
OSHA	Occupational Safety and Health Act
OU	Operable Unit
PCB	Polychlorinated Biphenyl
PHE	Public Health Evaluation
ppm	Parts per million
PRP	Potentially Responsible Party
RA	Remedial Action
RAO	Remedial Action Objective
RI	Remedial Investigation
ROD	Record of Decision
RPM	Remedial Project Manager
SRI	Supplemental Remedial Investigation
TBC	To Be Considered
TSCA	Toxic Substances Control Act
ug	microgram
VISL	Vapor Intrusion Screening Level
VOC	Volatile Organic Compound

EXECUTIVE SUMMARY

This is the fourth Five-Year Review (FYR) for the Pinette's Salvage Yard Superfund Site (Site) located in the town of Washburn in Aroostook County, Maine. The purpose of this FYR is to review information to determine if the remedy is and will continue to be protective of human health and the environment. The triggering action for this statutory FYR was the signing of the previous FYR on 9/28/2010.

The 12-acre Pinette's Salvage Yard Superfund Site is located on Gardner Creek Road in the town of Washburn in Aroostook County, Maine, in the northeastern corner of the state. In June 1979, three electrical transformers from Loring Air Force Base were brought to the Pinette's Site, where they apparently ruptured while being removed from the delivery vehicle. Approximately 900 to 1,000 gallons of dielectric fluid containing polychlorinated biphenyls (PCBs) spilled directly onto the ground.

Soil sampling between April 1980 and May 1982 revealed the presence of PCB contamination at the Site. In December 1982, the Site was placed on the National Priorities List (NPL).

On October 4, 1983, EPA Region I authorized an Immediate Removal Action (IRA) for the Pinette's Site. Approximately 1,050 tons (800 cu.yds.) of PCB-contaminated soil and assorted debris were removed for disposal. In 1985, a Deletion Remedial Investigation (DRI) was initiated to determine if PCB contamination was reduced sufficiently to warrant the deletion of the Site from the NPL. This investigation showed that the Site was not suitable for deletion from the NPL, and that a Supplemental Remedial Investigation (SRI) was warranted.

The SRI was begun in September 1987 and completed in March 1989. The SRI revealed the presence of a wide range of PCB concentrations in soils, as well as detectable concentrations of PCBs, benzene, chlorobenzene, 1,4-dichlorobenzene, 1,2,4-trichlorobenzene, and chloromethane in groundwater within both the shallow and deep aquifers at the Site. These detectable concentrations of organic chemicals in groundwater were found to be localized within and slightly downgradient of the spill area, in the vicinity of the MW-5 monitoring well cluster.

In conjunction with the SRI, a Public Health Evaluation (PHE, Ebasco, 1989a) was performed to estimate the probability and magnitude of potential adverse human health risks and environmental impacts from exposure to those contaminants associated with the Site. Exposure evaluations in the PHE reflected the fact that the Site was located in an area of both residential and agricultural use, and that potable groundwater is obtained through private wells. The results of the PHE evaluation indicated that the greatest site risks were associated with ingestion of groundwater, and that PCBs were identified as the contaminants responsible for the majority of the estimated risks. Hazard index estimates for groundwater ingestion ranged from $1x10^{-1}$ to $1x10^{+2}$.

Human health risks associated with direct contact with Site soils were also identified but were generally lower than those estimated for Site groundwater. PCBs represented 90 to 95 percent of the current/future excess lifetime cancer risk to humans.

On May 30, 1989, the EPA signed a ROD for the Pinette's Salvage Yard Superfund Site. The cleanup approach selected in the ROD was divided into two components: Source Control and Management of Migration (MOM). The Source Control component of the 1989 ROD

established a target cleanup goal of 5 mg/Kg for PCBs in soil to be protective of human health. Target cleanup levels were also established for benzene, several chlorobenzene compounds, chloromethane, and PCBs in unsaturated and in saturated soils based on leaching potential. In order to provide protectiveness to the environment, EPA (in consultation with the U.S. Fish & Wildlife Service) determined that no soils containing greater than 1 mg/Kg total PCBs would be left in the top 10 inches of soil at the Site, where it would be readily accessible to terrestrial wildlife. Soils with PCB concentrations between 1 and 5 mg/Kg were to be removed to a minimum depth of 10 inches, placed at the bottom of the deeper excavations, and covered with remediated soils from a solvent extraction system. As a final step, the entire Site was to be covered with new native soil containing <1 mg/Kg PCBs. The source control remedy also included construction of a fence around the main part of the Site to temporarily limit access during remediation.

The MOM component of the 1989 ROD required that contaminated groundwater containing concentrations above specified target cleanup goals be extracted from the ground and treated on-Site using filtration and carbon adsorption. In addition, the ROD required the establishment of institutional controls on the Site for groundwater. These controls were to include a complete prohibition on the use of the on-site groundwater for drinking water purposes both during and, if necessary, following overall Site remediation.

ROD Cleanup Levels were established for benzene, chlorobenzene, 1,4-dichlorobenzene, PCBs, 1,2,4-trichlorobenzene, lead, and chloromethane. The ROD indicated that because the PCBs in the groundwater at the Pinette's Site were found to be largely adsorbed onto soil particles, they were likely to be difficult to collect for groundwater treatment. The ROD also indicated that while EPA would collect and treat as much of the PCBs as technically feasible, it would probably be impossible to collect enough particulate-bound PCBs to reach the target cleanup goal. Therefore, in accordance with Section 117(a)(2) of CERCLA, the ROD invoked a waiver from compliance with the Maine Maximum Exposure Guideline for PCBs of 0.5 ug/L based on the technical impracticability, from an engineering perspective, of attaining this level.

The Source Control component of the remedy (as amended in June 1993) was substantially completed in November 1993. It was anticipated in the 1989 ROD that approximately 300 cubic yards (cy) of soil at the Site contained >50 mg/Kg PCBs would be removed for off-site incineration, and that 1,700 to 1,900 cy of soil contained 5 to 50 mg/Kg PCBs and would be treated on-site by solvent extraction. However, during the construction seasons of 1991 and 1992, only minimal success was achieved with on-site solvent extraction technologies. It was also determined that soils with greater than 50 mg/Kg PCBs were more widespread than anticipated. Due to the difficulties associated with the ROD-designated treatment process, the ROD was amended in 1993. Under the amended plan, soils with PCB concentrations of 500 mg/Kg or greater were to be incinerated off-site, and soils with 50 to 500 mg/Kg PCBs or 5 to 50 mg/Kg PCBs were to be handled by off-site land disposal, in either TSCA secure facilities or (for soils with 5 to 50 mg/Kg PCBs only) special waste landfills.

During the 1993 construction season, the extent of soil requiring removal continued to expand in response to the results of confirmation sampling at the edges of the excavation. The excavation on the southeast side of Gardner Creek Road was mostly shallow, although it was extended to a depth of 2 feet in small areas where the depth of PCB contamination was found to be greater than the anticipated 6 inches. On the main part of the Site northwest of Gardner Creek Road, the excavation was 6 feet deep over a large area. By the end of the excavation phase of the remediation in October 1993, about 1,000 tons of soil had been shipped off-site for incineration, and about 5,100 tons of soil had been shipped to an off-site landfill. For the most part, the

confirmatory sample results indicated that the target soil cleanup levels had been attained at the limit of the excavation. Successful removal and treatment of PCB-contaminated soil has significantly reduced the potential of exposure to hazardous substances at the Site, making the Pinette's Salvage Yard area suitable for residential use.

The results from groundwater samples collected during and after the source control remedial action indicated that the primary objective of the MOM component of the ROD (to reduce the migration of PCBs) had been achieved without active treatment. The concentrations of VOCs had decreased to below or near the cleanup levels, with the decreases attributed to the natural attenuation/degradation of contaminants, to the extraction and treatment of over one million gallons of contaminated groundwater during Source Control remedial activities, and to improved groundwater sampling techniques. As a result, EPA promulgated an Explanation of Significant Differences (ESD) for groundwater at the Site in 1996. The ESD determined that there was no need to actively treat the groundwater; however, since PCBs remained in the groundwater above the cleanup level, it also indicated that institutional controls (e.g., deed restrictions and/or easements) would have to be established to prevent the installation of domestic wells on the Site.

Institutional controls in the form of a Restrictive Covenant were implemented at the Pinette's Site in August 2002. The Covenant defined the Restricted Area of the Site as a circle, 260 feet in diameter with its center at the MW-5 monitoring well cluster. The overall purpose of the Covenant is to restrict access to the groundwater at the Site that contains PCBs at concentrations that exceed the MCL and MEG of 0.5 ug/L. To accomplish these overall objectives, the Covenant prohibits numerous activities within the Restricted Area including withdrawal or injection of water; change in land use; removal or tampering with monitoring wells and associated structures, including fencing; activities that might disturb the contaminated soil or impair the integrity of the overlying soil cover materials including construction of buildings, roads, or fills; excavation, grading, drilling, or any other disturbance of the ground; or removal, compaction, or erosion of soil or subsoil.

Based upon a recommendation from the Agency for Toxic Substance and Disease Registry (ATSDR), the ESD indicated that residential well sampling did not need to be continued. Contaminants in residential wells were determined not to be at levels of public health concern. In addition, it was noted that the site-related groundwater had been shown not to flow toward domestic wells in the surrounding area.

Finally, the ESD required that Five-Year Reviews of the Site be conducted to ensure that the remedy remains protective. At a minimum, groundwater sample collection from the monitoring well network was to continue to support Five-Year Reviews. The Five-Year Reviews were to determine whether the institutional controls were being effective and enforced; whether residential wells should be sampled; whether Site conditions changed over time with respect to potential migration which would warrant a different remedial approach; and whether the institutional controls could be removed.

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site Name: Pinette's Salvage Yard Superfund Site		
EPA ID: MED980732291		
Region: 1	**State:** ME	**City/County:** Washburn/Aroostook

SITE STATUS	
NPL Status: Deleted	
Multiple OUs? No	**Has the site achieved construction completion?** Yes

REVIEW STATUS
Lead agency: EPA ***[If "Other Federal Agency", enter Agency name]*:** Click here to enter text.
Author name (Federal or State Project Manager): Almerinda Silva
Author affiliation: USEPA Region 1
Review period: 12/12/2014 - 9/28/2015
Date of site inspection: 5/14/2015
Type of review: Statutory
Review number: 4
Triggering action date: 9/28/2010
Due date *(five years after triggering action date)*: 9/28/2015

Issues/Recommendations

OU(s) without Issues/Recommendations Identified in the Five-Year Review:
OU-1

Issues and Recommendations Identified in the Five-Year Review:				
OU(s): *1*	**Issue Category: No Issue**			
	Issue:			
	Recommendation: Click here to enter text.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**

Protectiveness Statement(s)

Operable Unit:	*Protectiveness Determination:*
1	Protective
Protectiveness Statement: The Site has only one Operable Unit (OU-1), so only a Sitewide Protectiveness Statement has been prepared.	

Sitewide Protectiveness Statement

Protectiveness Determination:
Protective

Protectiveness Statement: The remedy is protective of human health and the environment. The source control component was completed in 1994. Soils with contaminant concentrations in excess of cleanup levels were excavated and shipped off-site for treatment or disposal, and the remediated areas were then covered with at least one foot of soil with <1 mg/Kg PCBs. ICs in the form of a Declaration of Restrictive Covenant were implemented in 2002. Within the restricted area, the ICs prevent activities that could cause contact with groundwater above cleanup levels and appear to be functioning appropriately. Since it had been deemed unlikely that the PCBs in groundwater could be reduced everywhere on the Site to less than the cleanup goal of 0.5 ug/L PCBs, the 1989 ROD invoked a waiver from that requirement and instead established a goal of limiting the migration of PCBs. PCB concentrations continue to exceed the target cleanup level in only one well (DMW-5) in the center of the IC-restricted area, but concentrations are decreasing. As long as the Restrictive Covenant remains effective, the remedy is protective.

I INTRODUCTION

The purpose of a Five-Year Review (FYR) is to evaluate the implementation and performance of a remedy in order to determine if the remedy will continue to be protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in five-year review reports. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The U.S. Environmental Protection Agency (EPA) prepares FYRs pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121 and the National Contingency Plan (NCP). CERCLA 121 states:

> *"If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the Site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such Site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews."*

EPA interpreted this requirement further in the NCP; 40 Code of Federal Regulations (CFR) Section 300.430(f)(4)(ii), which states:

> *"If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the Site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such actions no less often than every five years after the initiation of the selected remedial action."*

EPA conducted a FYR on the remedy implemented at the Pinette's Salvage Yard Superfund Site in Washburn, Aroostook County, Maine. EPA is the lead agency for developing and implementing the remedy for the Site. The Maine Department of Environmental Protection (MEDEP), as the support agency representing the State of Maine, has reviewed all supporting documentation and provided input to EPA during the FYR process.

This is the fourth FYR for the Pinette's Salvage Yard Superfund Site. The triggering action for this statutory review is the completion date of the third FYR on September 28, 2010. The FYR is required due to the fact that hazardous substances, pollutants, or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure. The report reflects the fact that the Site has been delisted from the NPL. The Site consists of one Operable Unit. The remedy for the Site has two components, both of which are addressed in this FYR.

II PROGRESS SINCE THE LAST REVIEW

Table 1: Protectiveness Determinations/Statements from the 2010 FYR

OU #	Protectiveness Determination	Protectiveness Statement
1 (Source Control Component)	Protective	The Source Control component of the remedy was found to be protective in the 2010 FYR. Soils with contaminant concentrations in excess of cleanup levels were excavated and shipped off-site for treatment or disposal. Soils with PCB concentrations below the cleanup level of 5 mg/Kg but above 1 mg/Kg were removed from the top one foot of soil and placed below that depth in the excavation. The remediated areas were then covered with at least one foot of soil with <1 mg/Kg PCBs. ICs were implemented in the form of a Declaration of Restrictive Covenant, and they appeared to be functioning appropriately. The property owner appeared to be complying with the provisions of the Covenant.
1 (Management of Migration Component)	Protective	The Management of Migration component of the remedy was found to be protective in the 2010 FYR. Since it was deemed unlikely that the PCBs in groundwater could be reduced everywhere on the Site to less than the cleanup goal of 0.5 ug/L PCBs, the 1989 ROD invoked a waiver from that requirement and instead established a goal of limiting the migration of PCBs. Sampling results showed that the PCB concentrations exceeded the target cleanup level in only one well (DMW-5) in the center of the IC-restricted area. The Restrictive Covenant prohibits disturbance of groundwater in that area, and off-site residential wells were not found within or downgradient of that area.
Sitewide	Protective	Since the remedial actions for both components of the remedy were found to be protective, the remedy overall was found to be protective from an overall Sitewide perspective.

Table 2: Status of Recommendations from the 2010 FYR

OU #	Issue	Recommendations/ Follow-up Actions	Party Responsible	Oversight Party	Original Milestone Date	Current Status	Completion Date (if applicable)
1	Site owner appeared to be expanding operations in the rear portion of the property, outside the restricted area.	Increase Site inspection frequency to at least twice every five years instead of once.	EPA/ State	EPA/ State	1/1/2015	Completed	5/14/2015

III FIVE-YEAR REVIEW PROCESS

Administrative Components

Roger Pinette, a Potentially Responsible Party (PRP) and the current owner of the Site was notified of the initiation of the five-year review on 4/9/2015. The Pinette's Salvage Yard Superfund Site Five-Year Review was led by Almerinda Silva of the U.S. EPA, Remedial Project Manager (RPM) for the Site and Kate Melanson, the Community Involvement Coordinator (CIC). Brian Beneski, of the MEDEP, assisted in the review as the representative for the support agency.

The review, which began on 12/12/2014, consisted of the following components:

- Community Involvement;
- Document Review;
- Data Review;
- Site Inspection; and
- Five-Year Review Report Development and Review.

Community Notification and Involvement

Activities to involve the community in the five-year review process were initiated with a discussion in December 12, 2014 between the Remedial Project Manager and the Community Involvement Coordinator for the Site. Per Region 1 policy, a region-wide press release announcing all upcoming five-year reviews in New England was sent to all regional newspapers. The press release was sent on January 5, 2015, and is attached in Appendix H. The results of the Five-Year Review Report will be made available at the Site information repository located at

Washburn Town Office
Main St.
Washburn, ME.

and at

U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, MA 02109-3912

Document Review

This five-year review consisted of a review of relevant documents including monitoring data. A complete list of documents that were reviewed or that are cited as references in this report is included in Appendix B.

Data Review

Groundwater samples have been collected at the Pinette's Site for each FYR since 1999. Since 1995, shortly after completion of the source control remedy, all groundwater samples from the Site have been

collected using the EPA Region I low flow groundwater sampling procedure. The low flow procedure provides the most representative sample of the groundwater from the monitoring wells, especially when low concentrations of particle-bound contaminants are a concern.

During the May 2015 sampling event, groundwater samples were collected from the same twelve monitoring wells that were sampled in 2009: DMW-5, SMW-5A, BMW-5, DMW-7, SMW-7A, BMW-7, DMW-2, SMW-2, DMW-6, SMW-6, DMW-8, and SMW-8 (see Figure 2). The samples were collected using peristaltic pumps in all cases except BMW-5 and BMW-7, where a bladder pump was used. The samples were analyzed for total PCBs, dissolved PCBs (filtered samples), and VOCs with one exception; well DMW-8 recharged so slowly that a sample to be filtered for analysis of dissolved PCBs was not collected.

Results for VOCs. The CLP trace VOC analysis (SOW SOM01.2) method was used for the VOC analyses in 2015. This gas chromatography/mass spectrometry (GC/MS) method is the same as that used in the 2009 sampling event and is similar to those used in earlier sampling events.

The complete VOC results for the 2015 groundwater sampling event are included in Appendix C. A summary of the 2015 results for both VOCs and PCBs is presented in Table 3, along with 1) cleanup levels; 2) the results from three previous FYR sampling rounds (2009, 2004, and 1999); and 3) the results from samples collected at the end of the Remedial Action (RA). Table 3 shows the maximum detected concentration of each contaminant and the well in which the maximum occurred. Note that only contaminants that were detected in at least one sample collected in 2009 or 2015 are shown in Table 3.

Eight VOCs were detected in 2015, including six chlorinated benzene compounds (chlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2,3-trichlorobenzene, and 1,2,4-trichlorobenzene) and two compounds commonly associated with gasoline (methyl-tert-butyl-ether [MTBE] and toluene). Except for a trace (0.27J ug/L) concentration of 1,2,3-trichlorobenzene in SMW-2, chlorinated benzene compounds were detected only in DMW-5 and SMW-5A, the deep and shallow overburden wells in the area of the original spill. MTBE and toluene were both detected at trace levels in SMW-5A, and MTBE was the only VOC detected at DMW-2.

The 1989 ROD established cleanup goals for three of the chlorinated benzene compounds (chlorobenzene, 1,4-dichlorobenzene, and 1,2,4-trichlorobenzene), but the detected concentrations in 2015 were at least an order of magnitude below those cleanup goals. The chlorobenzene compounds are typically associated with PCBs and may function to solubilize and mobilize PCBs in groundwater; however, the concentrations are so low that significant mobilization of PCBs is unlikely. Furthermore, with the exception of toluene (which was not detected in 2009), the concentrations of all VOCs detected in 2015 were lower than the concentrations detected in 2009. Note that no VOC has been detected above a cleanup goal since the source area remedial action was completed.

Table 3. Summary of Groundwater Sampling Results

	PCBs	Chloro-benzene	Acetone	Benzene	MTBE	Toluene	1,2-Dichloro-Benzene	1,3-Dichloro-benzene	1,4-Dichloro-benzene	1,2,4-Trichloro-benzene	1,2,3-Trichloro-benzene
Cleanup Level	0.5	47	NA	5	NA	NA	NA	NA	27	680	NA
Maximum Concentration Post RA using low-flow sampling	8.5	12	NAV	1	NAV	NAV	NAV	NAV	ND	ND	NAV

method											
Location	DMW-5	SMW-5/5A	NA	BMW-5	NA	NA	NA	NA	NA	NA	NA
Maximum Concentration 1999	2.2	8.0	NAV	ND	NAV	NAV	NAV	NAV	ND	ND	NAV
Location	DMW-5	SMW-5/5A	NA	NA	NA	NA	NA	NA	NA	NA	NA
Maximum Concentration 2004	2.5	14	NAV	ND	NAV	NAV	NAV	NAV	11	13	NAV
Location	DMW-5	SMW-5A	NA	NA	NA	NA	NA	NA	SMW-5A	DMW-5	NA
Maximum Concentration 2009	2.1 J	8.9	7.2	0.39 J	1.4	ND	0.29 J	3.0	6.0	7.1	0.52
Location	DMW-5	SMW-5A	SMW-5A	SMW-5A	SMW-2	NA	SMW-5A	SMW-5A	SMW-5A	DMW-5	DMW-5
Maximum Concentration 2015	1.30 J	2.5	ND	ND	0.36 J	0.57	0.18 J	0.79	2.1	3.8	0.27 J
Location	DMW-5	SMW-5A	NA	NA	DMW-2	SMW-5A	DMW-5	SMW-5A	SMW-5A	DMW-5	SMW-2
	Results are in ug/L PCB results for Post RA are Total PCB Aroclors. For 1999, 2004, 2009, and 2015, the results are Total PCB Homologue groups. ND - Analyte not detected. NA – Not applicable. NAV – Not Available J – Value is estimated										

Results for PCBs. In the 2004 and 2009 sampling rounds, the PCB analyses were done using low-resolution gas chromatography/low-resolution mass spectrometry (LRGC/MS) for PCB congeners and homologue groups. However, in 2015, EPA elected to use CLP (SOW CBC01.2), a high-resolution gas chromatography/high-resolution mass spectrometry (HRGC/MS) method similar to the method that was used for the PCB analyses in 1999. Prior to 1999, PCB analyses were done using gas chromatography/electron capture detector (GC/ECD).

The complete PCB results for 2015 are included in Appendix D. PCB results from 2009 and 2015 are summarized in Table 4. The same 12 wells were sampled in those rounds, but only wells in which PCBs were detected in one or both rounds are shown in Table 4. In 2009, PCBs were detected at six wells (SMW-5A, DMW-5, BMW-5, SMW-7A, SMW-2, and SMW-8). In 2015, PCBs were detected at those six wells plus four additional wells (DMW-7, DMW-2, DMW-8, and SMW-6). In all cases, the detections at "new" wells in 2015 were at concentrations that were lower than the lowest detected (and estimated) concentration from 2009, suggesting that the 2015 detections are a result of the switch to a high-resolution analytical method.

Table 4. Detected Concentrations of PCBs in 2009 and 2015

Well ID	Total PCB Homologues (ug/L) – 2009	Total PCB Homologues (ug/L) – 2015
DMW-5 (unfiltered)	***2.1 J***	***1.30 J****
DMW-5 (filtered)	0.031 J	***1.09 J****
BMW-5 (unfiltered)	0.03 J	0.05980
BMW-5 (filtered)	0.009 J	0.00796
SMW-5A (unfiltered)	0.0037 J	0.01140
SMW-5A (filtered)	ND	0.00110
DMW-7 (unfiltered)	ND	0.00009
DMW-7	ND	0.00005

(filtered)		
SMW-7A (unfiltered)	0.0048 J	0.02000
SMW-7A (filtered)	0.0025 J	0.00569
SMW-6 (unfiltered)	ND	0.00092
SMW-2 (unfiltered)	0.04 J	0.00062
SMW-2 (filtered)	ND	0.00025
DMW-2 (unfiltered)	ND	0.00055
DMW-2 (filtered)	ND	0.00002
SMW-8 (unfiltered)	0.0012 J	ND
SMW-8 (filtered)	0.01 J	0.00003
DMW-8 (unfiltered)	ND	0.00013

Bold italic (e.g., 2.1 J) indicates that the concentration exceeds ROD cleanup goal of 0.5 ug/L
J – Value is estimated
ND – Not detected
* - Value is average of field duplicates

In 2009, only the PCB concentration in the unfiltered sample from DMW-5 (2.1J ug/L) exceeded the ROD cleanup goal of 0.5 ug/L. The filtered sample collected from DMW-5 in 2009 had a PCB concentration of 0.031 ug/L, well below the cleanup goal. Conversely, in 2015, the concentrations of PCBs in both the unfiltered and the filtered samples from DMW-5 (1.30 and 1.09 ug/L, respectively, both averages of two field duplicates) exceeded the cleanup goal. Of the other 15 samples in which PCBs were detected in 2015, only the unfiltered sample from BMW-5 had a concentration (0.05980 ug/L) that was within an order of magnitude of the cleanup goal.

In 2009, PCBs were detected in SMW-2 and SMW-8 (at concentrations more than an order of magnitude below the cleanup level). In 2015, PCBs were again detected in these two shallow wells and in the associated deep wells, but the concentrations were lower than the 2009 detections (or the reporting limits) and were at least two orders of magnitude below the cleanup level.

In summary, the results from the sampling rounds conducted between 1999 and 2015 indicate that PCBs are the only contaminant of concern that has been detected at concentrations above ROD Cleanup Levels. For the 2015 data, PCB concentrations exceed cleanup levels only in well DMW-5, located near the original source of contamination.

Site Inspection

The inspection of the Site was conducted on 5/14/2015 by Richard Purdy of AECOM, the contractor that is assisting EPA with preparation of the FYR. The purpose of the inspection was to assess the protectiveness of the remedy. A copy of the Site Inspection Checklist and photographs from the Site inspection are included as Appendix E.

Compliance with the Restrictive Covenant. During the Site inspections in both 2004 and 2009, it was noted that the area used for salvage operations might have been expanding outside (northwest of) the Restricted Area. In 2015, new activities (e.g., a large tire pile) were again noted in the part of the salvage yard northwest of the Restricted Area; however, the inspection did not reveal any evidence of expanded operations or prohibited activities being conducted within the Restricted Area. The property owner appears to be observing the requirements of the Covenant, and there are no known current or planned changes in land use that would suggest that the institutional controls will not continue to be effective. Several photographs showing typical land use and conditions within the Restricted Area in May 2015 are included in Appendix E.

Several fence-related issues that had been noted in the 2009 Site inspection were again noted in 2015. For example, one side of the fence that surrounds the MW-5 well cluster has a bent vertical post, and the horizontal support pipes (middle and top of fence) are no longer connected to the posts in several locations. However, the fence remains effective at limiting access to those wells, since the chain link fabric is intact. Also, sections of the fence that were built around much of the Site during the soil remediation were removed prior to 2009. As a result, 1) there is no fence on the northeast side of the Site between the MW-2 well cluster and the garage; 2) the fence that once crossed the dirt road that runs northwest from the MW-8 well cluster is gone; and 3) a relatively small gap exists in the chain link fabric between two adjacent vertical fence posts in the extreme western corner of the fenced area. Most of the fence along Gardner Creek Road is intact, as is the gate near the former MW-4 well cluster. Since only the fence around the MW-5 well cluster is subject to the Restrictive Covenant, the removals of sections of the perimeter fencing were not violations of that document.

The May 2015 inspection followed a snowy winter, and the grass-covered part of the Site within the triangular area formed by the MW-5, MW-7, and MW-2 well clusters was noted to be wet and muddy. Puddles and areas of standing water were present in low parts of the Site, although most, including the area just south of the MW-1 cluster, were outside or at the fringe of the restricted area.

Condition of Monitoring Wells. Nine clusters of monitoring wells were installed at the Site in the late 1980s. Three (MW-3, MW-4, and MW-9) of those original nine clusters were described as damaged or destroyed in the Site inspection associated with the first FYR (in 1999 or 2000). In November 2001, several wells were repaired, and two new overburden wells (presumably the MW-10 cluster) were installed.

Photographs showing the seven well clusters (MW-1, -2, -5, -6, -7, -8, and -10) that remain at the Site are included in Appendix E. In 2015, the monitoring wells were found to be locked (with two exceptions) and in reasonably good condition. Problems that were noted include the following: 1) many of the well protective casings appear to have been forced upwards, possibly by freeze/thaw cycles; 2) many of the bollards that surround the wells to protect them from vehicles are bent over, some severely; 3) access to the upgradient MW-1 cluster is slightly restricted by junked vehicles and standing water (although the standing water is probably a temporary springtime condition, caused by recent snowmelt and rainfall); 4) the caps on the protective pipes on wells SMW-10 and SMW-2 cannot be locked because the PVC well casings are above the top of the protective pipes (probably due to settlement of the protective pipes); and 5) access to the MW-10 cluster is slightly restricted by junked vehicles, vegetation, and the fence that separates the wells from Gardner Creek Road.

Interviews

During the FYR process, interviews were conducted with four parties involved with or potentially aware of the Site, including Roger Pinette, the current landowner, who was interviewed by telephone on 4/9/15; Reena Tarbox, the occupant of the residence closest to the original spill and Mr. Pinette's daughter, who was interviewed in person on 5/14/15; Brian Beneski, Program Manager of MEDEP's Uncontrolled Sites Program, who was sent an interview form which he completed and returned on 4/10/15; and Adam Doody, Code Enforcer for the Town of Washburn, who was interviewed by telephone on 4/23/15. The purpose of the interviews was to document any perceived problems or successes with the remedy that has been implemented to date. Interviews are summarized below, and complete interviews are included in Appendix F.

Interviewees were generally aware of the Restrictive Covenant, and none reported any knowledge of activities being conducted that would violate any of its provisions. Trespassing and vandalism were not considered to be problems at this Site, probably because of its status as an operating business. The general sentiment among the interviewees was that no problems are associated with the remedy, and the ICs (Restrictive Covenant) are effective at preventing exposures in the restricted area.

IV TECHNICAL ASSESSMENT

Question A: Is the remedy functioning as intended by the decision documents?

Yes. The reviews of documents, ARARs, and risk assumptions, as well as the 2015 groundwater sampling data and Site inspection, indicate that the Pinette's Salvage Yard Site remedy is functioning as intended by the ROD and the ESD.

Remedial Action Performance

Results from groundwater sampling events conducted in 2004, 2009, and 2015 indicate that of the contaminants of concern (COCs) at the Site, only the concentration of PCBs remains above its ROD Cleanup Level. Furthermore, although the 12 wells that were sampled in 2009 and 2015 include locations within and directly downgradient of the original source area, the exceedance of the cleanup Level for PCBs occurs in only the deep overburden monitoring well (DMW-5) at the center of the original spill area. This indicates that the source control remedy to remove contaminated soil was effective, and that minimal contamination is migrating into the groundwater from Site soils. In addition, since no evidence of new extraction wells near the Site was found, it is assumed that groundwater at the Site continues, in general, to migrate away from domestic wells in the area.

Opportunities for Optimization

As part of the FYR, a Management System Review (MSR) was performed and is included in Appendix E. The MSR includes discussions of the status of land use within the area of the Restrictive Covenant as well as the status of the monitoring wells at the Site, based on the Site inspection performed on May 14, 2015. The MSR presents a technical compliance evaluation to assess whether each element of the remedy is being maintained and operated in accordance with

its function. This technical memorandum includes the completed inspection checklist from the site inspection with annotated photographs; as well as a technical assessment of the remedy with recommendations for future monitoring at the Site. Twelve monitoring wells have been sampled during each of the last two FYR sampling events. Based on a review of the data, a number or recommendations for monitoring plan modifications will be incorporated prior to the next sampling event. As explained in the data review section of this report, with the exception of PCBs in one well (DMW-5) in the original spill area, no contaminant has been detected above a cleanup level in any well for about 20 years. In all the other wells in which PCBs were detected in 2015, only the bedrock well (BMW-5) at the same (MW-5) cluster had a PCB concentration (0.05980 ug/L) that was within an order of magnitude of the cleanup level (0.5 ug/L). For the next FYR, sampling could be limited to the six monitoring wells at the MW-5 and MW-7 well clusters. As long as contaminant concentrations do not show upward trends at those wells (which are within and directly downgradient of the original source area), it is unlikely that contamination would have spread to other wells at the Site that are farther downgradient or not downgradient from the former source area.

On the southeast side of Gardner Creek Road opposite the original spill area, the ground surface slopes downward toward the wetlands that parallel the Aroostook River. At the base of that slope, approximately 175 feet downgradient of the MW-7 well cluster, a spring known as the Groundwater Breakout Area emerges from the ground and flows to the southeast (see Figure 2 and Photo #11 in Appendix E). The spring, which emerges at an elevation of approximately 450 to 455 feet, appears to be approximately downgradient of deep overburden wells at the MW-7 and MW-2 well clusters and close to well cluster SMW-6. The sampling in 2015 showed that the PCB concentrations at those three well clusters were an order of magnitude or more below the cleanup level, so as explained in the previous paragraph, the list of wells to be sampled in future FYRs could be reduced. However, as an additional confirmation that contaminants have not migrated in groundwater out of the original spill area, the Groundwater Breakout Area could be sampled in the next round.

In the last two FYR sampling rounds, the goal has been to collect and analyze both an unfiltered and a filtered sample from each well. Since unfiltered samples may contain particle-bound PCBs that are removed by filtering, PCB results from filtered samples have typically been 2 to 10 times lower than the unfiltered sample results. In 2015, for the first time in recent sampling events, the results from the filtered sample (and duplicate) from DMW-5 were essentially equal to the results from the unfiltered sample and duplicate. The reason(s) for these atypical results are unknown; since colloidal-sized particles can be smaller than 0.45 microns (the filter size used for the samples from this Site), filtering can have different effects in different samples. In any case, the concentrations in the samples from all the wells except DMW-5 are so far below the cleanup level that the difference between the filtered and unfiltered is somewhat irrelevant. Therefore, with the exception of DMW-5, the collection of only unfiltered samples should not have an adverse effect on the usefulness of the results.

Early Indicators of Potential Issues

Evaluation of the 2015 groundwater data does not indicate any contaminant concentration changes that appear to be a cause for future concern. ROD cleanup levels are exceeded only for PCBs and only at well DMW-5. The groundwater sampling data also did not indicate evidence of any significant migration of PCBs from DMW-5, either downward into the bedrock (well BMW-5) or laterally to the MW-7 well cluster.

Implementation of Institutional Controls and Other Measures

Institutional controls to prevent the disturbance of soil and water within the area of groundwater contamination and former soil contamination on the Site have been implemented. In August 2002, the MEDEP developed and, with Roger Pinette, implemented a Declaration of Restrictive Covenant for a portion of the property owned by Roger Pinette. This Restrictive Covenant establishes institutional controls regarding land and groundwater use within a circle 260 feet in diameter, surrounding the MW-5 well cluster. As previously noted, activities prohibited within the institutional control area include:

- Alteration of surface water, groundwater or the water table;
- Change in use from the present land use;
- Tampering with or removing monitoring wells;
- Tampering with or removing survey markers; and
- Per the Restrictive Covenant agreement, any activity which might disturb the contaminated soil or impair the integrity of the overlying soil cover materials in the Restricted Area.

In October 2012 MEDEP conducted the first Site inspection in the interim of the previous and current five year reviews. In May 2015 during the groundwater sampling event, a second Site inspection was conducted by EPA and AECOM. During both Site inspections, the property owner appeared to be observing the requirements of the Restrictive Covenant. There were no obvious violations of the Restrictive Covenant within the area of institutional controls although some Site alterations were observed outside the 260 foot institutional control area. There are no known current or planned changes in land use at the Site that would suggest that the institutional controls will not continue to be effective.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy section still valid?

No. There have been changes to toxicity values and risk assessment methods since remedy selection, however, these changes do not impact the protectiveness of the remedy.

ARARs Review

ARARs for the Pinette's Site were identified in the ROD (1989).

The ROD indicated that the selected remedy would meet or attain all ARARs, with the exception of the Maine Maximum Exposure Guideline (MEG) for PCBs in groundwater. Since no technology existed which was capable of ensuring the collection of particulate-bound PCBs to meet the Maine MEG, EPA invoked a waiver of this ARAR in the ROD, on the grounds that its attainment was technically impracticable from an engineering standpoint. The ROD indicates that EPA would collect and treat as much of the PCBs as technically feasible, and establish a goal to limit the migration of PCBs in groundwater.

Most of the ARARs cited in the ROD were related to the source control remedy and were met with the completion of source control remedy. OSHA regulations are no longer considered

ARAR by EPA, since they are worker safety rules with which compliance is always required. The Federal MCLs and Maine MEGs remain relevant and appropriate for Site groundwater and were used to derive many of the groundwater cleanup levels. A review of changes to these standards for those contaminants with target groundwater cleanup levels is provided in the following section. These ARARs are being complied with or will be complied with upon remedy completion. Institutional controls will remain in place, and groundwater quality will be monitored until groundwater cleanup goals are attained. Based on the ARARs review, there have been no changes in these ARARs and no new standards or TBCs affecting the protectiveness of the remedy.

Standards Related to Groundwater

A review of the current Federal MCLs and Maine MEGs for the constituents with groundwater cleanup levels indicated the following:

- PCBs - Both the current MCL and the current MEG are 0.5 ug/L, the same as the ROD cleanup level for groundwater, though the ROD also implemented a technical impracticability waiver for this cleanup level. Recent groundwater sampling results indicate that the target cleanup level has not yet been met in one monitoring well at the Site; well DMW-5 at the center of the original spill area contained a PCB concentration of 1.3 ug/L (1.1 ug/L dissolved) in 2015.

- Benzene – The current MCL is 5 ug/L, the same as the ROD cleanup level. The current MEG is 4 ug/L, which is lower than (more stringent) than the ROD Target MOM Cleanup Level. Recent groundwater sampling results indicate that the target cleanup level and the more stringent MEG are being met.

- 1,4-Dichlorobenzene – The current MEG is 70 ug/L and the current MCL is 75 ug/L. The current MEG is higher (less stringent) than the ROD target cleanup level (27 ug/L). Recent groundwater sampling results indicate that the target cleanup level is being met.

- Chlorobenzene - The current MCL is 100 ug/L and the current MEG is 100 ug/L, both of which are higher (less stringent) than the cleanup level for groundwater (47 ug/L). Recent groundwater sampling results indicate that the target cleanup level is being met.

- 1,2,4-Trichlorobenzene - Both the current MCL and the current MEG are 70 ug/L, which is lower (more stringent) than the ROD target cleanup level (680 ug/L). Recent groundwater sampling results indicate that the target cleanup level and the more stringent MCL/MEG are being met.

- Chloromethane –There is no MCL for this constituent. The current MEG is 20 ug/L, which is higher (less stringent) than the target cleanup level for groundwater (10 ug/L), which was set at the Contract Laboratory Program (CLP) analytical detection limit at the time the ROD was written. Recent groundwater sampling results indicate that the target cleanup level is being met.

- Lead – The current MEG is 10 ug/L. Both the current action level/MCL and the

target cleanup level are 15 ug/L. Following the implementation of low-flow sampling at the Site in 1995, the highest concentration of lead detected in groundwater was 14.5 ug/L. In 1999, lead was undetected in groundwater at reporting limits of 1.7 to 2 ug/L, indicating that the cleanup level was met at that time. No analyses for lead were performed during the 2004, 2009, or 2015 sampling rounds.

Based on this review, changes to MCLs and MEGs have occurred since the ROD, but they do not impact the protectiveness of the remedy, since groundwater monitoring has shown that contaminant concentrations are below the ROD Target MOM Cleanup Levels and the more stringent standards (MEGs/MCLs) that currently exist for benzene, 1,2,4-trichlorobenzene, and lead. A change in the ROD target cleanup level for1,2,4-trichlorobenzene will be made in a future decision document.

Changes in Expected Land Use

The Restrictive Covenant signed in August of 2002 prohibits any change in land use within the Restricted Area of the Pinette's Site without the prior written approval of the MEDEP. The May 2015 Site inspection indicated that the Restricted Area of the Site continues to be used primarily for storage of junked automobiles. As was the case in 2009, it appears that new salvage activities (e.g., a tire pile) are being implemented only outside the Restricted Area, in the area west of DMW-1.

In past assessments of the Site, concern has been expressed that continued auto salvage operations at the Site might, if improperly implemented, result in some increased groundwater contamination at the Site (from petroleum products). This conceivably might impact Site monitoring in one of two ways. First, any spillage of petroleum products could increase levels of aromatic hydrocarbons, including benzene, in groundwater. Since there is a ROD Cleanup Level for benzene, the progress of the remedy could be delayed by any petroleum spills. Secondly, petroleum spills at the Site could, depending upon location, act to mobilize any residual PCBs in soils, facilitating migration to groundwater. Petroleum related volatile organics in groundwater could also accelerate PCB migration downgradient from the MW-5 well cluster. While fuel spills that could adversely affect the cleanup are certainly a possibility in an active salvage yard, it should be noted that VOC concentrations in groundwater have been consistently low. Also, most of the vehicles that are stored in the Restricted Area are positioned on the concrete pad that was installed during the source control remedial action, which would help to diminish the effects of small or slow leaks or spills.

New Routes of Exposure or New Receptors

No new water supply wells are known to have been installed within the Restricted Area or at nearby residences, and no water is known to be extracted for non-potable use. No previously unconsidered receptors are known to be accessing the Site or the Restricted Area.

Newly Identified Contaminants

Of the original COCs for the Site, 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,2,3-trichlorobenzene were detected during the 2015 sampling round, similar to the 2009 sampling round, after not having been detected during the 1999 and 2004 sampling rounds. The compounds 1,2-dichlorobenzene and 1,2,3-trichlorobenzene were detected at one well location

each (DMW-5 and SMW-2, respectively), and 1,3-dichlorobenzene was detected at two well locations (SMW-5A and DMW-5). These three compounds do not have target cleanup levels. Two of these compounds (1,2-dichlorobenzene and 1,3-dichlorobenzene) have MEGs (200 and 1 ug/L, respectively); however, the detected concentrations (<1 ug/L) were below those standards.

Also worth noting was the detection of MTBE (in two wells), never detected at the Site until 2009 (in four wells). There is currently no federal MCL for MTBE, but the detected concentrations were well below the MEG of 35 ug/L.

Toluene was detected in one well (SMW-5A). There is a federal MCL for toluene (1000 ug/L) and a MEG of 600 ug/L. The detected concentration (0.57 ug/L) is well below those standards.

Changes in Site Conditions

With the exception of the activities observed to the southwest of DMW-1 and outside the Restricted Area, no significant changes in Site conditions have been observed since the last Five-Year Review. The perimeter fencing for the MW-5 well cluster, though slightly damaged, is intact, and the monitoring well network is in reasonably good condition. No changes in Site conditions were observed that would jeopardize the protectiveness of the selected remedy as modified by the ESD.

Changes in Toxicity Values or Other Contaminant Characteristics

Since the third Five-Year Review was performed in 2010, there have been no published changes to relevant toxicity values. As discussed in the 2010 Five-Year Review, any previous toxicity value changes have not affected the protectiveness of the remedy.

Changes in Risk Assessment Methods

Final guidance was published by EPA in June 2015 on the evaluation of the vapor intrusion to indoor air exposure pathway. This guidance has raised the level of awareness about, and focused greater attention on, this potential pathway. However, potential vapor intrusion into indoor air is not a concern with regard to protectiveness because: (1) the remaining levels of VOCs in the groundwater at the Site have been measured to be very low (detected concentrations are below target groundwater concentrations for a target cancer risk of 1E-06 and target hazard quotient of 1 in EPA's Vapor Intrusion Screening Level [VISL] calculator [Version 3.4, June 2015]); (2) there are no occupied buildings currently within the Restricted Area; and (3) the Restrictive Covenant prohibits the construction or placement of any buildings within the Restricted Area without prior written permission of the MEDEP.

Subsequent to when groundwater cleanup levels were established in the 1989 ROD, dermal absorption and inhalation of volatile contaminants were incorporated into the development of risk-based groundwater cleanup levels, rather than ingestion alone. The impact of this change is negligible because the ROD cleanup levels for most VOCs were based on state or federal drinking water standards and not risk-based values. Any analytes which had risk-based cleanup levels now have state and/or federal drinking water standards. Furthermore, VOCs with cleanup levels have currently been either not detected or detected at concentrations well below existing or potential drinking water standards. As the Restrictive Covenant is in place and preventing exposure pathways to the groundwater, the protectiveness of the remedy is not impacted by this

change.

As discussed in the previous Five-Year Review, a method to evaluate compounds with mutagenic modes of action is now recommended by EPA. The current methodology calls for the use of age-specific adjustment factors to account for an increased sensitivity during early life. This supplemental early-life calculation was not performed as part of the Public Health Evaluation since the EPA carcinogen risk assessment guidance was published subsequent to the completion of the site-specific risk evaluation. None of the contaminants detected in the 2015 monitoring round are considered to have mutagenic modes of action. Therefore, this change in methodology is not expected to impact the protectiveness of the remedy.

Finally, in 2014, EPA finalized a Directive to update standard default exposure factors and frequently asked questions associated with these updates. http://www.epa.gov/oswer/riskassessment/superfund_hh_exposure.htm (items # 22 and #23 of this web link; USEPA, 2014 [revised February 2015]). Many of these exposure factors differ from those used in the risk assessment(s) supporting the ROD. These changes in general would result in a slight decrease of the risk estimates (and slight increase in any risk-based cleanup levels) for most chemicals. As there was only one cleanup level based on a risk-based derivation (1,2,4-trichlorobenzene), and that analyte now has an MCL, these changes are not expected to impact the protectiveness of the remedy.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

No.

Technical Assessment Summary

The 2015 groundwater sampling data and Site inspection, as well as the reviews of documents, ARARs, and risk assumptions, indicate that the Pinette's Salvage Yard Site remedy is functioning as intended by the ROD and the ESD. During the source control Remedial Action (RA), soils with contaminant concentrations that posed risks to human health or the environment via direct contact or via leaching to groundwater were removed. Following the source control RA, only the concentrations of PCBs in groundwater still exceeded a cleanup goal. No migration of contamination out of the remediated source area has been detected, and even though the ROD invoked a waiver within the spill area from achieving the cleanup level for PCBs, concentrations continue to decline in the one well where the cleanup goal is still exceeded. The ICs at the Site continue to be effective in preventing contact with groundwater within the area described in the Restrictive Covenant, and no change in land-use is anticipated in the near future.

The exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy selection are still valid. Subsequent changes in toxicity values and risk assessment methods have occurred since remedy selection; however, these changes do not impact the protectiveness of the remedy. A change in the ROD target cleanup level for 1,2,4-trichlorobenzene will be made in a future decision document.

V ISSUES/RECOMMENDATIONS AND FOLLOW-UP ACTIONS

Table 5: Issues and Recommendations/Follow-up Actions

OU #	Issue	Recommendations/ Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness? (Y/N)	
						Current	Future
1	None	None	NA	NA	NA	No	No

In addition, the following are recommendations that reduce costs but do not affect current protectiveness and were identified during the Five-Year Review. These recommendations will be incorporated into a revised monitoring plan prior to the next sampling event:

- *Collect groundwater samples from only the six wells in the MW-5 and MW-7 clusters in future FYR sampling events. All other wells should be appropriately abandoned.*
- *Collect unfiltered and filtered samples from well DMW-5 only; collect only unfiltered samples from the other five wells following current SOPS for groundwater collection.*
- *In response to the proposed reduction in groundwater well sampling, MEDEP recommends that at the next five year review, a sample for PCBs from the Groundwater Break Out area located downgradient and across the street from the Site should be sampled.*

VI PROTECTIVENESS STATEMENT

Protectiveness Statement(s)	
Operable Unit: OU-1	*Protectiveness Determination:* Protective
Protectiveness Statement: The Site has only one Operable Unit (OU-1), so only a Sitewide Protectiveness Statement has been prepared.	

Sitewide Protectiveness Statement
Protectiveness Determination: Protective
Protectiveness Statement: The remedy is protective of human health and the environment. The source control component was completed in 1994. Soils with contaminant concentrations in excess of cleanup levels were excavated and shipped off-site for treatment or disposal, and the remediated areas were then covered with at least one foot of soil with <1 mg/Kg PCBs. ICs in the form of a Declaration of Restrictive Covenant were implemented in 2002. Within the restricted area, the ICs prevent activities that could cause contact with groundwater above cleanup levels and appear to be functioning appropriately. The soil cleanup also resulted in achievement of the groundwater cleanup levels for VOCs at the Site. Since it had been

deemed unlikely that the PCBs in groundwater could be reduced everywhere on the Site to less than the cleanup goal of 0.5 ug/L PCBs, the 1989 ROD invoked a waiver from that requirement and instead established a goal of limiting the migration of PCBs. PCB concentrations continue to exceed the target cleanup level in only one well (DMW-5) in the center of the IC-restricted area, but concentrations are decreasing. As long as the Restrictive Covenant remains effective, the remedy is protective.

VII NEXT REVIEW

The next five-year review report for the Pinette's Salvage Yard Superfund Site is required five years from the completion date of this review.

APPENDIX A

EXISTING SITE INFORMATION

APPENDIX A – EXISTING SITE INFORMATION

A. SITE CHRONOLOGY

Table A-1: Site Chronology

Event	Date
Initial discovery of problem or contamination	April 1980
Proposed for NPL	December 30, 1982
Final NPL listing	September 8, 1983
Immediate Removal Action (IRA)	October 4 - November 4, 1983
Deletion Remedial Investigation (DRI) begun	1985
Supplemental Remedial Investigation begun	September 1987
Supplemental Remedial Investigation completed	November 1988
Final Supplemental Remedial Investigation and Public Health Evaluation (PHE) released	March 1989
Draft Final Feasibility Study released	March 1989
Public Meeting to present Proposed plan	March 14, 1989
Public Hearing on Proposed plan	April 11, 1989
ROD issued	May 30, 1989
Remedial design complete	June 1990
On-site remedial action construction start	May 1991
RA Construction completion	November 1993
ROD Amendment for Source Control	June 2, 1993
Final Source Control Remedial Action Report	September 1994
Residential wells sampled (7 rounds)	November 1987 – April 1995
Monitoring wells sampled (8 rounds)	March 1993 - October 1995
ESD for Groundwater	May 20, 1996
Summary of Environmental Data and Evaluation Report	June 1996
Monitoring wells sampled	June & October 1999
First FYR Report issued by EPA	September 26, 2000
Confirmatory PCB sampling of concrete pad	May 2001
Monitoring well repair and replacement complete	November 2001
Final Remedial Action Report for Groundwater	July 2002
Restrictive Covenant establishes ICs for use of land and groundwater	August 2002
Deletion from NPL	September 30, 2002
Second FYR Report issued by EPA	September 27, 2005
Third FYR Report issued by EPA	September 28, 2010
MEDEP Site visit	October 17, 2012

B. BACKGROUND

Physical Characteristics

The 12-acre Pinette's Salvage Yard Superfund Site straddles Gardner Creek Road near the western boundary of the town of Washburn in Aroostook County, Maine (Figure 1). The bulk (9.45 acres) of the Site is a parcel of land on the northwest side of Gardner Creek Road, owned by Roger Pinette and used for the operation of a salvage yard where the original spill occurred. The remainder of the Site is part of an undeveloped parcel on the southeast side of the road, owned by others. The contamination migrated onto this parcel via surface water runoff from the salvage yard, which passed beneath Gardner Creek Road in a drainage culvert.

The town of Washburn has an estimated population of approximately 1,700 residents. The small downtown area of Washburn is about one mile northeast of the Site and includes various small businesses, a health center, the Town Hall, and an elementary school and high school.

Hydrology

Drilling for monitoring well installations during the remedial investigation revealed four lithologic units at the Site. The uppermost stratum is a thin layer of alluvium which varies in thickness from 2 to 6 feet. Beneath the alluvium lies a clay layer, which varies in thickness from 2 to 3 feet in the northern part of the Site to more than 10 feet in the southern part. The clay layer is underlain by a glacial outwash/till sequence. The bedrock surface was typically encountered at depths of 24 to 30 feet. The uppermost bedrock was found to be weathered and fractured.

The clay layer, which reportedly has a significantly low permeability, separates the shallow saturated alluvium layer from the moderately permeable glacial outwash/till and bedrock.

While the main channel of the Aroostook River is about 1500 feet southeast of the Site, the river splits just upstream of the Site, and a smaller side channel of the river flows to within about 500 feet of the Site. Between the side channel and the Site, wetlands and smaller surface water features that lie along the edge of the Aroostook River floodplain exist within about 300 feet of the Site. All of these surface water features are approximately parallel to Gardner Creek Road in the immediate vicinity of the Site and flow to the northeast. The direction of groundwater flow at the Site is reportedly to the southeast toward the surface water features.

Land and Resource Use

A portion of the Site was being used as a vehicle repair and salvage yard when the original spill occurred, and the owner (Roger Pinette) has continued to operate an auto and appliance salvage business on that 9.45-acre parcel. Damaged vehicles have been stored and/or dismantled, and parts recovered from those vehicles have been sold. Land use within a one mile radius of the Site includes residential, agricultural, forest, and wetland. The area immediately surrounding the Site is expected to remain primarily forest and farmland.

All residences in the vicinity of the Site use private wells for water supplies. The wells are reportedly drilled into the bedrock aquifer. As explained in more detail in a later section of this

report, groundwater use is restricted within 130 feet of a well cluster at the center of the original source area.

History of Contamination

In June 1979, three electrical transformers from Loring Air Force Base located near Limestone, Maine, were removed from the base under a written agreement with a private electrical contractor. Allegedly, the transformers were brought to Pinette's Site, where they apparently ruptured while being removed from the delivery vehicle. Approximately 900 to 1,000 gallons of dielectric fluid containing polychlorinated biphenyls (PCBs) spilled directly onto the ground.

In April 1980, MEDEP determined that the Site was contaminated with PCBs and associated volatile organic contaminants (VOCs). Additional sampling by MEDEP in August 1981 and by the EPA in May 1982 confirmed the presence of PCB contamination at the Site. In December 1982, the Site was placed on the National Priorities List (NPL).

Initial Response

On October 4, 1983, EPA Region I authorized an Immediate Removal Action (IRA) for the Pinette's Site. Approximately 1,050 tons (800 cubic yards) of PCB-contaminated soil and assorted debris were removed for disposal during the period from October 4 to November 4, 1983. The IRA was performed to excavate those soils grossly contaminated by PCBs; i.e., soils containing 50 parts per million (ppm) or greater of PCBs, as determined by on-site analysis. Those soils that were excavated were then transported to the Model City, New York secure hazardous waste landfill facility.

In 1985, a Deletion Remedial Investigation (DRI) was initiated at the Pinette's Site to determine if any residual PCB contamination existed and whether this residual contamination was reduced sufficiently to warrant the deletion of the Site from the NPL. This investigation resulted in the determination by the EPA, in consultation with the MEDEP, that the Site was not suitable for deletion from the NPL. The results of the DRI were released to the public in October 1987.

Based on the levels of residual PCB contamination discovered during the DRI, the EPA, in consultation with the MEDEP, determined that a Supplemental Remedial Investigation (SRI) was warranted at the Pinette's Site. The SRI was performed using a two-phased approach. Phase I and Phase II field investigations were conducted to address any outstanding data requirements and objectives, so that the data would be of sufficient quality and quantity to support the preparation of a Feasibility Study (FS). The Phase I field investigations were performed from September 1987 through November 1987. Phase II field activities were completed in November 1988. The Final SRI and Public Health Evaluation Report (Ebasco, 1989a) and the Draft Final Feasibility Study Report (Ebasco, 1989b) were distributed for public comment in March 1989.

The results of Phase I and Phase II of the SRI revealed the presence of a wide range of PCB concentrations in the surface (0-6 inches) and subsurface (6 inches to 6 feet) soils. The majority of the PCBs in soil were located in a generally elliptical area measuring approximately 150 feet by 80 feet. PCB concentrations in surface soils were found to be as high as 92 ppm, while subsurface concentrations were as high as 11,000 ppm at a depth between 6 inches and two feet.

During the SRI, a total of 19 monitoring wells were installed throughout the Site, at nine separate locations. Detectable concentrations of PCBs, benzene, chlorobenzene, 1,4-dichlorobenzene, 1,2,4-trichlorobenzene, and chloromethane were identified in groundwater within both the shallow and deep till aquifers at the Site (Ebasco, 1989a). These detectable concentrations of organic chemicals were found to be localized within and slightly downgradient of the spill area, in the vicinity of the MW-5 monitoring well cluster, but north of Gardner Creek Road. No detectable concentrations of PCBs were identified in filtered samples obtained at the Site, although PCBs were detected in unfiltered samples.

Basis for Taking Action

In conjunction with the SRI, a Public Health Evaluation (PHE, Ebasco, 1989a) was performed to estimate the probability and magnitude of potential adverse human health risks and environmental impacts from exposure to those contaminants associated with the Site. A suite of 26 contaminants of concern identified at the Site during the SRI were selected for evaluation in the PHE. Exposure evaluations in the PHE reflected the fact that the Site was located in an area of both residential and agricultural use. The PHE also emphasized the fact that in the immediate Site area, potable groundwater is obtained through private wells. The following contaminants of potential concern (COPCs) were identified in the PHE for groundwater at the Pinette's Site:

- Benzene
- Toluene
- Chlorobenzene
- Chloroethane
- Chloromethane
- 1,2-Dichlorobenzene
- 1,3-Dichlorobenzene
- 1,4-Dichlorobenzene
- 1,2,4-Trichlorobenzene
- Lead
- PCB Aroclor -1260
- Acetone

Results of the PHE evaluation indicated that the greatest Site risks were associated with the following groundwater exposure pathways:

- Ingestion of groundwater from the shallow aquifer (maximum upper bound excess cancer risk estimate - $5x10^{-3}$)
- Ingestion of groundwater from the deep aquifer (maximum upper bound excess cancer risk estimate - $7x10^{-2}$)
- Ingestion of groundwater from the bedrock aquifer (maximum upper bound cancer risk estimate - $2x10^{-3}$)

In the shallow, deep, and bedrock aquifers, PCBs were identified as the contaminants responsible for the majority of the estimated risks. Hazard index estimates for groundwater ingestion ranged from $1x10^{-1}$ to $1x10^{+2}$.

Human health risks associated with direct contact with site soils were also identified but were

generally lower than those estimated for Site groundwater. PCBs represented 90 to 95 percent of the current/future excess lifetime cancer risk to humans.

C. REMEDIAL ACTIONS

Remedy Selection

On May 30, 1989, the EPA signed a ROD for the Pinette's Salvage Yard Superfund Site. In support of development of the ROD, a number of potential exposure pathways were analyzed for risk and threats to public health and the environment in the PHE. As a result of these assessments, remedial response objectives were developed to mitigate existing and future threats to public health and the environment. These response objectives were:

- provide adequate protectiveness to human health against risks associated with direct contact or incidental ingestion of contaminants in the surface and subsurface soil, sediments, and from current and potential future migration of contaminants from soils to groundwater, sediments and surface water;

- provide adequate protectiveness to human health from potential risks associated with inhalation of VOCs and PCBs potentially released from the Site;

- provide adequate protectiveness to human health from risks associated with potential future consumption of groundwater;

- provide adequate protectiveness to the environment, including plants and terrestrial and aquatic wildlife, from potential adverse impacts associated with contact with contaminated surface soils/sediments, and from current and future distribution of contaminants migrating in groundwater, sediments, and surface water;

- ensure adequate protection of groundwater, air, and surface water from the continued release of contaminants from soils/sediments; and

- comply with chemical-specific, location-specific, and action-specific Applicable or Relevant and Appropriate Requirements (ARARs) and other guidance for surface and subsurface soils, groundwater, air, and surface water for both existing and future Site conditions.

The cleanup approach selected in the ROD was divided into two components: Source Control and Management of Migration (MOM).

Source Control. Approximately 1,050 tons of contaminated on-site soil were removed in an Immediate Removal Action in 1983. Further investigation over the period from 1985 to 1987 showed that there was additional remaining soil contamination. The Source Control component of the 1989 ROD established a target cleanup goal of 5 mg/Kg for PCBs in soil to be protective of human health. Target cleanup levels were also established for benzene, several chlorobenzene compounds, chloromethane, and PCBs in unsaturated and in saturated soils based on leaching potential. In order to provide protectiveness to the environment, EPA (in consultation with the U.S. Fish & Wildlife Service) determined that no soils containing greater than 1 mg/Kg would be

left in the top 10 inches of soil at the Site, where it would be readily accessible to terrestrial wildlife. The source control remedy also included construction of a fence around the main part of the Site to temporarily limit access during remediation.

The 1989 ROD called for different means of treatment or disposal of soils based on the contaminant levels. Soils with PCB concentrations of 50 mg/Kg or greater were to be taken off-Site for incineration. Soils with PCB concentrations between 5 and 50 mg/Kg, and/or with concentrations of other organic compounds in excess of the groundwater protection cleanup levels, were to be treated on-site using solvent extraction. Soils with PCB concentrations between 1 and 5 mg/Kg were to be removed to a minimum depth of 10 inches, placed at the bottom of the deeper excavations, and covered with remediated soils from the solvent extraction system. As a final step, the entire Site was to be covered with new native soil containing <1 mg/Kg PCBs.

Management of Migration. The MOM component of the 1989 ROD required that contaminated groundwater containing concentrations above specified target cleanup goals be extracted from the ground and treated on-site using filtration and carbon adsorption. The 1989 ROD required active groundwater treatment to reduce the concentration of VOCs to their cleanup goals as a means of reducing the migration of PCBs.

The MOM remedy required that groundwater contamination at the Site be actively addressed by utilizing groundwater collection and carbon adsorption treatment. The system was to first entail construction of shallow interceptor trenches and deep extraction wells to collect the contaminated groundwater. Collected groundwater was to then be pumped through a granular filter to remove suspended/colloidal particulate matter.

Following this preliminary filtration step, the groundwater was to be treated by carbon adsorption to remove the organic contaminants found in the groundwater. All treated groundwater was to then be discharged back into the shallow aquifer through the use of shallow recharge trenches. The entire groundwater collection system was to extract approximately eight to sixteen gallons per minute for approximately two years. In addition, the ROD required the establishment of institutional controls on the Site for groundwater. These controls were to include a complete prohibition on the use of the on-site groundwater for drinking water purposes both during and, if necessary, following overall Site remediation.

The MOM portion of the selected remedial action was designed primarily to provide adequate protectiveness to human health from effects associated with potential future use of on-site groundwater, if left untreated. This was and is important since residents living in the immediate vicinity of the Site use residential well water as a source of potable drinking water, and no municipal water supply system currently serves the area of the Site. In addition, the continued presence and/or migration of the other organic contaminants in the on-site groundwater could potentially mobilize the relatively immobile particulate-bound PCBs also present in the aquifer.

The groundwater cleanup levels specified in the ROD focused on the levels of groundwater contamination at the Site, the current (at the time of the ROD) and potential future use of the groundwater, and the time required to achieve the overall Site remediation goals. Based on the contaminants found in the on-site groundwater, and as discussed in the ROD, the following contaminants and their respective Maximum Contaminant Level (MCL) or State of Maine Maximum Exposure Guideline (MEG) were identified as appropriate groundwater cleanup goals

(as stated in the 1989 ROD):

Table A-2. Groundwater Cleanup Levels

Contaminant	MCL/MEG
Benzene	5 ug/L
Chlorobenzene	47 ug/L
1,4-Dichlorobenzene	27 ug/L
PCBs	0.5 ug/L

A ROD Cleanup Level for 1,2,4-trichlorobenzene of 680 ug/L was also established. Finally, groundwater cleanup goals were established for lead (5 ug/L), based on the then-proposed MCL for lead; and for chloromethane (10 ug/L), based upon the analytical detection limit of this compound in water. The ROD indicated that because the PCBs in the groundwater at the Pinette's Site were found to be largely adsorbed onto soil particles, they were likely to be difficult to collect for groundwater treatment. The ROD also indicated that while EPA would collect and treat as much of the PCBs as technically feasible, it would probably be impossible to collect enough particulate-bound PCBs to reach the target cleanup goal. Therefore, in accordance with Section 117(a)(2) of CERCLA, the ROD invoked a waiver from compliance with the State of Maine Maximum Exposure Guideline for PCBs of 0.5 ug/L based on the technical impracticability, from an engineering perspective, of attaining this level.

Remedy Implementation

The Source Control component of the remedy (as amended in June 1993) was substantially completed in November 1993. The Management of Migration component of the remedy was essentially completed in May 1996, when the requirement for active treatment of groundwater at the Site was determined to be unnecessary and deleted.

Source Control. It was anticipated in the 1989 ROD that approximately 300 cubic yards (cy) of soil at the Site contained >50 mg/Kg PCBs and would be removed for off-site incineration, and that 1,700 to 1,900 cy of soil contained 5 to 50 mg/Kg PCBs and would be treated on-site by solvent extraction.

During the construction seasons of 1991 and 1992, only minimal success was achieved with on-site solvent extraction technologies. It was also determined that soils with greater than 50 mg/Kg PCBs were more widespread than anticipated. Due to the difficulties associated with the ROD-designated treatment process, the ROD was amended in 1993. Under the amended plan, soils with PCB concentrations of 500 mg/Kg or greater were to be incinerated off-site, and soils with 50 to 500 mg/Kg PCBs or 5 to 50 mg/Kg PCBs were to be handled by off-site land disposal, in either TSCA secure facilities or (for soils with 5 to 50 mg/Kg PCBs only) special waste landfills.

During the 1993 construction season, the extent of soil requiring removal continued to expand in response to the results of confirmation sampling at the edges of the excavation. Also, a layer of gravel from which PCB-containing liquid seeped was exposed on one side of the excavation. By the end of the excavation phase of the remediation in October 1993, about 1,000 tons of soil had been shipped off-site for incineration, and about 5,100 tons of soil had been shipped to an off-site landfill. The final activities of the 1993 construction season included backfilling and rough grading, decontamination and partial demolition and disposal of the concrete pad that had been

constructed for the remedial action, and demobilization.

The approximate limits of the areas in which soils were excavated are shown on Figure 2. The excavation on the southeast side of Gardner Creek Road was mostly shallow, although it was extended to a depth of 2 feet in small areas where the depth of PCB contamination was found to be greater than the anticipated 6 inches. On the main part of the Site northwest of Gardner Creek Road, the excavation was 6 feet deep over a large area. For the most part, the confirmatory sample results indicated that the target soil cleanup levels had been attained at the limit of the excavation.

Dewatering was required during the deeper excavation. Approximately one million gallons of groundwater were removed from the excavation throughout the remediation, treated, and returned to the ground in recharge trenches or surface drains. The standards for the discharged water were basically the same as the groundwater cleanup goals for the Site.

The fence that had been built surrounding the Site to limit access during remediation was left in place when active remediation was completed. In the summer of 1994, the final cover for the Site was established by placing topsoil and final grading.

Management of Migration. As discussed in the subsequent EPA Explanation of Significant Differences (ESD), which was promulgated in 1996 for groundwater at the Site, monitoring results subsequently demonstrated that the primary objective of the MOM component of the ROD (to reduce the migration of PCBs) was achieved without active treatment.

Groundwater data collected during the MOM Pre-design studies (1993, 1994 and 1995) following the completion of the source control remedy (see the 1996 Summary of Environmental Data and Evaluation Report) indicated that the concentrations of VOCs had decreased to below or near the cleanup level established in the 1989 ROD. Decreases in VOC levels were attributable to the natural attenuation/degradation of contaminants, to the extraction and treatment of over one million gallons of contaminated groundwater during Source Control remedial activities, and to improved groundwater sampling techniques.

The ESD formally changed the cleanup level for lead in groundwater from 5 ug/L to 15 ug/L, making it equal to the final MCL. The ESD noted that in monitoring wells, the maximum concentration of lead detected in unfiltered samples since EPA began using low flow sampling in 1995 was 14.5 ug/L, below the cleanup level of 15 ug/L. Also as indicated in the ESD, the maximum concentration of PCBs detected in unfiltered monitoring well samples since the low flow sampling method was introduced was 8.5 ug/L, which was still above the ROD Cleanup Level of 0.5 ug/L. VOCs for which ROD Cleanup Levels had been established for the Site were not detected in unfiltered samples above cleanup levels after low flow sampling began.

The 1989 ROD required active groundwater treatment to reduce the concentration of VOCs to their ROD Cleanup Levels as a means of reducing the migration of PCBs. The Pre-Design monitoring results demonstrated that the primary objective of the MOM component of the ROD had been achieved – PCB migration had been sufficiently reduced. The concentrations of VOCs were already below their cleanup levels. Furthermore, the migration of PCBs was sufficiently reduced; downgradient wells had not shown any contamination. Consequently, the ESD determined that there was no need to actively treat the groundwater.

The ESD recognized that despite the noted improvements, groundwater at the Pinette's Site still contained concentrations of PCB contaminants which would pose an unacceptable risk if ingested. Therefore, to prevent the ingestion and use of contaminated groundwater, the ESD indicated that institutional controls (e.g., deed restrictions and/or easements) would have to be established to prevent the installation of domestic wells on the Site.

Institutional controls in the form of a Restrictive Covenant were implemented at the Pinette's Site in August 2002. The Covenant defined the Restricted Area of the Site as a circle, 260 feet in diameter with its center at the MW-5 monitoring well cluster. The overall purpose of the Covenant is to restrict access to the groundwater at the Site that contains PCBs at concentrations that exceed the MCL and MEG of 0.5 ug/L. To accomplish these overall objectives, the Covenant prohibits numerous activities within the Restricted Area including withdrawal or injection of water; change in land use; removal or tampering with monitoring wells and associated structures, including fencing; activities that might disturb the contaminated soil or impair the integrity of the overlying soil cover materials including construction of buildings, roads, or fills; excavation, grading, drilling, or any other disturbance of the ground; or removal, compaction, or erosion of soil or subsoil.

Based upon a recommendation from the Agency for Toxic Substance and Disease Registry (ATSDR), the ESD indicated that residential well sampling did not need to be continued. Contaminants in residential wells were determined not to be at levels of public health concern. In addition, it was noted that the site-related groundwater had been shown not to flow toward domestic wells in the surrounding area.

Finally, the ESD required that Five-Year Reviews of the Site be conducted to ensure that the remedy remains protective. At a minimum, groundwater sample collection from the monitoring well network was to continue to support Five-Year Reviews. The Five-Year Reviews were to determine whether the institutional controls were being effective and enforced; whether residential wells should be sampled; whether Site conditions changed over time with respect to potential migration which would warrant a different remedial approach; and whether the institutional controls could be removed.

System Operation/Operation and Maintenance

As discussed above, the ESD indicated that active groundwater treatment was not required for the Pinette's Site. However, in accordance with the ESD, groundwater monitoring has been continued at the Site to support the Five-Year Review process. Groundwater monitoring was conducted during multiple sampling rounds in 1999 and during single sampling rounds in September 2004, October 2009, and May 2015.

When the Site is inspected, typically during five-year reviews, compliance with the provisions of the Restrictive Covenant is confirmed. In general, the inspections focus on the fencing that surrounds the MW-5 cluster; the monitoring wells throughout the Site (but particularly those within the Restricted Area); and the condition of the ground surface and the land use within the Restricted Area.

The Site inspection associated with the five-year review in 2000 revealed some deficiencies in the monitoring well network at the Site. Following an evaluation of the status of the monitoring wells and the monitoring program, EPA performed a number of activities at the Site in 2001 and

2002 including repair of some monitoring wells; installation of several new monitoring wells; construction of a fence around the MW-5 monitoring well cluster, where the most contaminated groundwater was located; sampling of the remaining portions of the concrete pad to determine PCB concentrations; and completion of the Final Remedial Action Report for Groundwater. EPA formally announced initiation of the delisting process for the Pinette's Site in July 2002. Following implementation of the Declaration of Restrictive Covenant by MEDEP in August 2002, the Site was delisted from the NPL in September 2002.

APPENDIX B – LIST OF DOCUMENTS REVIEWED/CITED

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U.S. Environmental Protection Agency (USEPA), 2015. *Sampling and Analysis Plan (SAP) for the Analysis of Volatile Organic Compounds and Chlorinated Biphenyl Congeners, Washburn, ME.* May 2015.

APPENDIX C

RESULTS FOR VOCS

2015 Groundwater Sampling Round
Results for Trace Volatile Organic Compounds (ug/L)

Well Cluster:	MW-2				MW-5								MW-6				MW-7						MW-8			
Well ID:	SMW-2		DMW-2		SMW-5A		DMW-5				BMW-5		SMW-6		DMW-6		SMW-7A		DMW-7		BMW-7		SMW-8		DMW-8	
							Field Duplicate		Field Duplicate																	
Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Chloromethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Vinyl chloride	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Bromomethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Chloroethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Trichlorofluoromethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,1-Dichloroethene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Acetone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Carbon disulfide	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Methyl acetate	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Methylene chloride	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
trans-1,2-Dichloroethene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Methyl tert-butyl ether	0.50	U	**0.36**	**J**	**0.24**	**J**	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,1-Dichloroethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
cis-1,2-Dichloroethene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Bromochloromethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Chloroform	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,1,1-Trichloroethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Cyclohexane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Carbon tetrachloride	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Benzene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,2-Dichloroethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Trichloroethene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Methylcyclohexane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,2-Dichloropropane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Bromodichloromethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
cis-1,3-Dichloropropene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
4-Methyl-2-pentanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Toluene	0.50	U	0.50	U	**0.57**		0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
trans-1,3-Dichloropropene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,1,2-Trichloroethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Tetrachloroethene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
2-Hexanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Dibromochloromethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,2-Dibromoethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Chlorobenzene	0.50	U	0.50	U	**2.5**		**0.94**		**0.65**		0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Ethylbenzene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
o-Xylene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
m,p-Xylene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Styrene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Bromoform	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Isopropylbenzene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,1,2,2-Tetrachloroethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,3-Dichlorobenzene	0.50	U	0.50	U	**0.79**		**0.61**		**0.66**		0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,4-Dichlorobenzene	0.50	U	0.50	U	**2.1**		**0.78**		**0.59**		0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,2-Dichlorobenzene	0.50	U	0.50	U	0.50	U	**0.15**	**J**	**0.18**	**J**	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,2-Dibromo-3-chloropropane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,2,4-Trichlorobenzene	0.50	U	0.50	U	**0.21**	**J**	**3.0**		**3.8**		0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,2,3-Trichlorobenzene	**0.27**	**J**	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U

NOTES:
All data are validated to Tier 2/S3VEM
Analyses performed by Spectrum Analytical (Mitkem) in accordance with Contract Laboratory Program Statement of Work SOM01.2.
Detections are shown in bold font with gray background

J - Sample concentrations reported by the laboratory below the lowest concentration calibration standard are flagged (J) as estimated values with no superscripts.
U - Results are not detected at the concentration presented.

APPENDIX D

RESULTS FOR PCBS

2015 Groundwater Sampling Round
Results for PCB Congeners (pg/L)

Well Cluster:		MW-2								MW-5													
Well ID:		SMW-2				DMW-2				SMW-5A				DMW-5								BMW-5	
Total / Dissolved:		Total		Dissolved		Total		Dissolved		Total		Dissolved		Total				Dissolved				Total		Disso
														Field Duplicate		Field Duplicate		Field Duplicate		Field Duplicate			
CL#	Compounds	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result
1	PCB-1	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	41.8		69.8		54.9		58.7		21.2	U	20.8
1	PCB-2	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
1	PCB-3	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
2	PCB-4	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	134	J[2]	203	J[2]	143		163		21.2	U	20.8
2	PCB-5	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
2	PCB-6	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	28.1		20.8
2	PCB-7	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
2	PCB-8	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	58.9		69.6		54.3		59.7		56.9		20.8
2	PCB-9	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
2	PCB-10	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
2	PCB-11	36.9	U[1]	41.7	U[1]	38.5	U[1]	34.0	U[1]	22.5	U	22.2	U	22.3	U	28.9	U[1]	32.3	U[1]	33.6	U[1]	73.0		42.4
2	PCB-12/13	43.9	U	45.0	U	45.3	U	44.0	U	45.0	U	44.5	U	44.5	U	43.0	U	44.4	U	43.8	U	66.4		41.6
2	PCB-14	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
2	PCB-15	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.7		22.2	U	22.3		72.7		20.8
3	PCB-16	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	205		201		148		149		38.3		20.8
3	PCB-17	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	265		232		194		197		21.2	U	20.8
3	PCB-18/30	43.9	U	45.0	U	45.3	U	44.0	U	45.0	U	44.5	U	729		762		580		608		50.2		41.6
3	PCB-19	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	106		102		92.3		89.4		21.2	U	20.8
3	PCB-20/28	43.9	U	45.0	U	45.3	U	44.0	U	45.0	U	44.5	U	266		284		242		251		104		41.6
3	PCB-21/33	43.9	U	45.0	U	45.3	U	44.0	U	45.0	U	44.5	U	136		154		123		131		83.9		41.6
3	PCB-22	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	80.4		76.0		62.7		63.6		69.8		20.8
3	PCB-23	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
3	PCB-24	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
3	PCB-25	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	23.8		22.2	U	21.9	U	21.2	U	20.8
3	PCB-26/29	43.9	U	45.0	U	45.3	U	44.0	U	45.0	U	44.5	U	50.4		54.8		44.4	U	47.5		42.4	U	41.6
3	PCB-27	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	43.7		28.3		30.9		28.9		21.2	U	20.8
3	PCB-31	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	226		247		202		210		227		20.8
3	PCB-32	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	101		101		82.9		83.9		21.2	U	20.8
3	PCB-34	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
3	PCB-35	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
3	PCB-36	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
3	PCB-37	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	29.8		36.6		37.3		38.0		88.1		20.8
3	PCB-38	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
3	PCB-39	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
4	PCB-40/71	43.9	U	45.0	U	45.3	U	44.0	U	45.0	U	44.5	U	819		766		417		486		42.4	U	41.6
4	PCB-41	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	25.4		37.9		24.8		21.2	U	20.8
4	PCB-42	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	580		586		306		332		29.7		20.8
4	PCB-43	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	528		437		169	J[2]	315	J[2]	21.2	U	20.8
4	PCB-44/47/65	65.9	U	67.5	U	68.0	U	66.1	U	67.5	U	66.7	U	12700		10500		5680		6340		112		62.4
4	PCB-45/51	43.9	U	45.0	U	52.9		44.0	U	45.0	U	44.5	U	437		385		264		274		122		41.6
4	PCB-46	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	156		128		78.3		85.0		21.2	U	20.8
4	PCB-48	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	531		423		252		290		21.2	U	20.8
4	PCB-49/69	43.9	U	45.0	U	45.3	U	44.0	U	69.4		44.5	U	15500		12800		7090		7950		49.1		41.6
4	PCB-50/53	43.9	U	45.0	U	45.3	U	44.0	U	45.0	U	44.5	U	422		383		242		263		42.4	U	41.6
4	PCB-52	22.0	U	22.5	U	22.7	U	22.0	U	255		96.9		21700		18200		10900		12000		118		20.8
4	PCB-54	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
4	PCB-55	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
4	PCB-56	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	298		320		201		227		95.5		20.8
4	PCB-57	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
4	PCB-58	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
4	PCB-59/62/75	65.9	U	67.5	U	68.0	U	66.1	U	67.5	U	66.7	U	174		175		114		108		63.7	U	62.4
4	PCB-60	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	64.8		72.5		59.7		66.3		21.2	U	20.8
4	PCB-61/70/74/76	87.9	U	89.9	U	90.6	U	88.1	U	90.0	U	89.0	U	1430		1480		887		969		187		83.2
4	PCB-63	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	UJ[2]	49.0	J[2]	27.3		31.4		21.2	U	20.8
4	PCB-64	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	534		450		276		296		58.8		20.8
4	PCB-66	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	811		881		549		596		76.6		20.8

2015 Groundwater Sampling Round
Results for PCB Congeners (pg/L) (Continued)

	Well Cluster:	MW-2								MW-5													
	Well ID:	SMW-2				DMW-2				SMW-5A				DMW-5								BMW-5		
	Total / Dissolved:	Total		Dissolved		Total		Dissolved		Total		Dissolved		Total				Dissolved				Total		Disso
														Field Duplicate		Field Duplicate		Field Duplicate		Field Duplicate				
CL#	Compounds	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result
4	PCB-67	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
4	PCB-68	22.0	U	22.5	U	**25.5**		**23.8**		22.5	U	22.2	U	**234**		**205**		**113**		**135**		21.2	U	20.8
4	PCB-72	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	**215**		**204**		**112**		**122**		21.2	U	20.8
4	PCB-73	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	**378**	J^2	**219**	J^2	22.2	U	21.9	U	21.2	U	20.8
4	PCB-77	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	**48.5**		**50.9**		**50.3**		**46.5**		**35.7**		20.8
4	PCB-78	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
4	PCB-79	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	**319**		**286**		**144**	J^2	**206**	J^2	21.2	U	20.8
4	PCB-80	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
4	PCB-81	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
5	PCB-82	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U^3	21.5	U	**406**		**480**		21.2	U	20.8
5	PCB-83	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	**3100**		**4130**		**2450**		**2020**		**28.4**		20.8
5	PCB-84	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	**6390**		**6220**		**2990**		**3330**		**76.2**		20.8
5	PCB-85/116/117	65.9	U	67.5	U	68.0	U	66.1	U	67.5	U	66.7	U	**569**	J^2	64.6	UJ^2	**1120**	J^2	**417**	J^2	63.7	U	62.4
5	86/87/97/109/119/125	132	U	135	U	136	U	132	U	135	U	133	U	**21600**		**21700**		**13000**		**14100**		**179**		125
5	PCB-88/91	43.9	U	45.0	U	45.3	U	44.0	U	45.0	U	44.5	U	**1900**		**2000**		**923**		**1050**		42.4	U	41.6
5	PCB-89	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	UJ^2	**63.2**	J^2	**30.4**		**35.0**		21.2	U	20.8
5	PCB-90/101/113	70.8	U^1	67.5	U	82.7	U^1	66.1	U	**518**		**146**		**69000**		**67300**		**96800**		**107000**		**1310**		**173**
5	PCB-92	24.5	U^1	22.5	U	28.6	U^1	22.0	U	**65.3**		29.3	U^1	**26400**		**27300**		**37600**		**42200**		**172**		26.4
5	PCB-93/100	43.9	U	45.0	U	45.3	U	44.0	U	45.0	U	44.5	U	44.5	U	43.0	U	44.4	U	43.8	U	42.4	U	41.6
5	PCB-94	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	**111**	J^2	**184**	J^2	21.2	U	20.8
5	PCB-95	57.0	U^1	22.5	U	60.6	U^1	22.0	U	**419**		**115**		**60300**		**58700**		**58900**		**60900**		**1690**		**296**
5	PCB-96	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	**50.7**		**37.6**		22.2	U	**23.8**		21.2	U	20.8
5	PCB-98/102	43.9	U	45.0	U	45.3	U	44.0	U	45.0	U	44.5	U	**1160**		**1230**		**565**		**633**		42.4	U	41.6
5	PCB-99	31.2	U^1	22.5	U	48.9	U^1	22.0	U	**99.9**		62.9	U^1	**41500**		**43500**		**41100**		**42100**		55.5	U^1	20.8
5	PCB-103	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	**18000**		**16700**		**8350**		**9380**		21.2	U	20.8
5	PCB-104	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
5	PCB-105	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	**274**		**229**		**284**		**294**		21.2	U	20.8
5	PCB-106	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
5	PCB-107	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	**3710**		**4240**		**2610**		**2820**		21.2	U	20.8
5	PCB-108/124	43.9	U	45.0	U	45.3	U	44.0	U	45.0	U	44.5	U	**60.2**		**46.3**		**48.5**		**48.4**		42.4	U	41.6
5	PCB-110/115	43.9	U	45.0	U	45.3	U	44.0	U	**199**		**47.1**		**51100**		**50300**		**30000**		**32400**		**839**		**114**
5	PCB-111	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	**1200**		**1320**		**761**		**824**		21.2	U	20.8
5	PCB-112	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
5	PCB-114	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
5	PCB-118	22.0	U	22.5	U	22.7	U	22.0	U	**80.2**		22.2	U	**6650**		**6680**		**5320**		**5330**		**283**		20.8
5	PCB-120	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	**2200**		**2460**		**1430**		**1560**		21.2	U	20.8
5	PCB-121	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	**1070**		**1110**		**508**		**608**		21.2	U	20.8
5	PCB-122	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
5	PCB-123	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
5	PCB-126	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
5	PCB-127	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U^3	22.2	U	21.9	U	21.2	U	20.8
6	PCB-128/166	43.9	U	45.0	U	45.3	U	44.0	U	**51.6**		44.5	U	**3410**		**2470**		**2120**		**2200**		**252**		41.6
6	PCB-129/138/163	**121**		**74.4**		**81.2**		66.1	U	**1150**		**111**		**131000**		**113000**		**79500**		**82300**		**5110**		**654**
6	PCB-130	22.0	U	22.5	U	22.7	U	22.0	U	**33.2**		22.2	U	**8130**		**7830**		**5160**		**5510**		**140**		20.8
6	PCB-131	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	**506**	J^2	**317**	J^2	**253**		**256**		**28.9**		20.8
6	PCB-132	34.7	U^1	22.5	U	**39.8**		22.0	U	**339**		**45.5**		**29400**		**28700**		**26900**		**27300**		**1640**		**230**
6	PCB-133	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	**30300**		**33300**		**18000**		**20000**		**53.0**		20.8
6	PCB-134	22.0	U	22.5	U	22.7	U	22.0	U	**48.4**		22.2	U	**14600**		**13300**		**7430**		**9130**		**225**		**31.1**
6	PCB-135/151	75.8	U^1	45.0	U	99.1	U^1	44.0	U	**509**		96.8	U^1	**73700**		**74100**		**70400**		**72300**		**2660**		**355**
6	PCB-136	22.0	U	22.5	U	29.4	U^1	22.0	U	**177**		32.7	U^1	**21500**		**21100**		**31200**		**34900**		**849**		**146**
6	PCB-137	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	**345**		**282**		21.2	U	20.8
6	PCB-139/140	43.9	U	45.0	U	45.3	U	44.0	U	45.0	U	44.5	U	**14700**		**16000**		**8660**		**9660**		42.4	U	41.6
6	PCB-141	**23.5**		22.5	U	22.7	U	22.0	U	**263**		**27.7**		**16500**	J^2	**10700**	J^2	**8860**		**9040**		**1400**		**178**

2015 Groundwater Sampling Round
Results for PCB Congeners (pg/L) (Continued)

Well Cluster:		MW-2								MW-5													
Well ID:		SMW-2				DMW-2				SMW-5A				DMW-5								BMW-5	
Total / Dissolved:		Total		Dissolved		Total		Dissolved		Total		Dissolved		Total				Dissolved				Total		Dissc
														Field Duplicate		Field Duplicate		Field Duplicate		Field Duplicate			
CL#	Compounds	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result
6	PCB-142	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
6	PCB-143	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
6	PCB-144	22.0	U	22.5	U	22.7	U	22.0	U	63.4		22.2	U	6200	J[2]	3830	J[2]	3110		3200		341		50.6
6	PCB-145	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
6	PCB-146	33.1	U[1]	22.5	U	40.0	U[1]	22.0	U	163		39.0	U[1]	52800		58000		50400		51600		561		73.3
6	PCB-147/149	116	U[1]	62.8	U[1]	128		44.0	U	1150		154		113000		109000		103000		104000		5060		772
6	PCB-148	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	13700		14700		7890		8830		21.2	U	20.8
6	PCB-150	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	1400		1490		590		686		21.2	U	20.8
6	PCB-152	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
6	PCB-153/168	143		79.1	U[1]	106		44.0	U	1230		154		82500		78300		78300		77800		5270		625
6	PCB-154	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	35600		39100		21000		23400		21.2	U	20.8
6	PCB-155	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
6	PCB-156/157	43.9	U	45.0	U	45.3	U	44.0	U	66.8		44.5	U	2550		2100		2080		2160		280		41.6
6	PCB-158	22.0	U	22.5	U	22.7	U	22.0	U	78.0		22.2	U	5640		4250		3490		3590		404		49.3
6	PCB-159	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	94.7		20.8
6	PCB-160	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
6	PCB-161	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
6	PCB-162	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
6	PCB-164	22.0	U	22.5	U	22.7	U	22.0	U	76.1		22.2	U	12200		11100		6760		7310		399		50.2
6	PCB-165	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	2340		2410		1280		1470		21.2	U	20.8
6	PCB-167	22.0	U	22.5	U	22.7	U	22.0	U	25.3		22.2	U	992		808		772		798		128		20.8
6	PCB-169	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
7	PCB-170	40.9		27.2		22.7	U	22.0	U	436		26.2		16700		12500		10500		11000		2740		396
7	PCB-171/173	43.9	U	45.0	U	45.3	U	44.0	U	133		44.5	U	6390		4540		3930		4190		775		129
7	PCB-172	22.0	U	22.5	U	22.7	U	22.0	U	70.1		22.2	U	3490		2700		2250		2330		444		64.9
7	PCB-174	48.7		37.1		24.3		22.0	U	504		32.3		29900		21700		16900		17900		2800		497
7	PCB-175	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	933	J[2]	636	J[2]	508		546		105		20.8
7	PCB-176	22.0	U	22.5	U	22.7	U	22.0	U	53.8		22.2	U	8450		7940		4800		5360		324		53.9
7	PCB-177	33.7		22.5	U	22.7	U	22.0	U	295		24.4		36500		36800		23700		26000		1580		264
7	PCB-178	22.0	U	22.5	U	22.7	U	22.0	U	79.2		22.2	U	25700		27600		15800		17200		494		69.9
7	PCB-179	23.9		22.5	U	22.7	U	22.0	U	170		22.2	U	37000		35800		20100		22500		1090		167
7	PCB-180/193	106		66.9		47.5		44.0	U	1010		70.1		41600		33900		28500		29200		6340		926
7	PCB-181	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	60.5	J[2]	21.5	UJ[2]	29.9		30.4		21.2	U	20.8
7	PCB-182	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	680		896		479		509		21.2	U	20.8
7	PCB-183/185	43.9	U	45.0	U	45.3	U	44.0	U	321		44.5	U	16300	J[2]	10700	J[2]	9440		10100		1820		291
7	PCB-184	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	32.4		42.9		26.1		29.4		21.2	U	20.8
7	PCB-186	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
7	PCB-187	81.7		48.7		41.3		22.0	U	494		51.2		29900		28600		30100		30600		3070		430
7	PCB-188	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	74.4		81.3		46.4		54.9		21.2	U	20.8
7	PCB-189	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	487		410		384		407		103		20.8
7	PCB-190	22.0	U	22.5	U	22.7	U	22.0	U	92.5		22.2	U	3370		2580		2230		2340		541		82.6
7	PCB-191	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	698		532		456		466		111		20.8
7	PCB-192	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
8	PCB-194	22.0	U	22.5	U	22.7	U	22.0	U	167		22.2	U	4260		3610		3040		3360		1320		190
8	PCB-195	22.0	U	22.5	U	22.7	U	22.0	U	75.7		22.2	U	2170		1840		1470		1630		595		93.0
8	PCB-196	22.0	U	22.5	U	22.7	U	22.0	U	86.8		22.2	U	2940		2500		2000		2150		781		97.2
8	PCB-197/200	43.9	U	45.0	U	45.3	U	44.0	U	45.0	U	44.5	U	1620		1550		1210		1300		231		41.6
8	PCB-198/199	43.9	U	45.0	U	45.3	U	44.0	U	160		44.5	U	7480		6820		5200		5450		1500		200
8	PCB-201	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	1390		1360		1050		1160		172		23.7
8	PCB-202	22.0	U	22.5	U	22.7	U	22.0	U	25.8		22.2	U	1920		1940		1450		1590		208		37.3
8	PCB-203	22.0	U	22.5	U	22.7	U	22.0	U	101		22.2	U	3590		2940		2290		2470		911		120
8	PCB-204	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
8	PCB-205	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	226		193		174		187		69.3		20.8
9	PCB-206	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	553		525		506		556		266		31.9
9	PCB-207	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	122		119		116		124		38.4		20.8
9	PCB-208	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	140		146		148		158		45.5		20.8

2015 Groundwater Sampling Round
Results for PCB Congeners (pg/L) (Continued)

	Well Cluster:	MW-2								MW-5													
	Well ID:	SMW-2				DMW-2				SMW-5A				DMW-5								BMW-5	
	Total / Dissolved:	Total		Dissolved		Total		Dissolved		Total		Dissolved		Total				Dissolved				Total	Dissc
														Field Duplicate		Field Duplicate		Field Duplicate		Field Duplicate			
CL#	Compounds	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result
10	PCB-209	22.0	U	22.5	U	22.7	U	22.0	U	22.5	U	22.2	U	22.3	U	21.5	U	22.2	U	21.9	U	21.2	U	20.8
	Total MoCB	ND		ND		ND		ND		ND		ND		**41.8**		**69.8**		**54.9**		**58.7**		ND		ND
	Total DiCB	ND		ND		ND		ND		ND		ND		**193**	J	**294**	J	**197**		**245**		**297**		ND
	Total TrCB	ND		ND		ND		ND		ND		ND		**2240**		**2300**		**1790**		**1900**		**661**		ND
	Total TeCB	ND		ND		**78.4**		**23.8**		**324**		**96.9**		**57900**	J	**49000**	J	**28000**	J	**31200**	J	**884**		ND
	Total PeCB	ND		ND		ND		ND		**1380**		**308**		**316000**	J	**315000**	J	**305000**	J	**328000**	J	**4580**		**583**
	Total HxCB	**288**		**74.4**		**355**		ND		**5430**		**492**		**673000**	J	**646000**	J	**538000**		**558000**		**24900**		**3210**
	Total HpCB	**335**		**180**		**113**		ND		**3660**		**204**		**261000**	J	**228000**	J	**170000**		**181000**		**22300**		**3370**
	Total OcCB	ND		ND		ND		ND		**617**		ND		**25600**		**22800**		**17900**		**19300**		**5790**		**761**
	Total NoCB	ND		ND		ND		ND		ND		ND		**815**		**789**		**770**		**838**		**350**		**31.9**
	DeCB	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND
	Total PCBs^	**623**		**254**		**546**		**23.8**		**11400**		**1100**		**1340000**	J	**1260000**	J	**1060000**	J	**1120000**	J	**59800**		**7960**
	Total TEQ#	0		0		0		0		**0.00517**		0		**0.333**		**0.312**		**0.270**		**0.274**		**0.0274**		0

NOTES:

All data are validated to Tier 2/S4VEM

Analyses performed by Cape Fear Analytical in accordance with Contract Laboratory Program Statement Of Work CBC01.2

Detections are shown in bold font with gray background

^ Total PCBs are the sum of the total homologues.

The Toxic Equivalent concentrations are calculated with the Toxicity Equivalency Factors (TEFs) found in "The 2005 World Health Organization Re-evaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds, Society of Toxicology, July 7, 2006. The TE values are calculated using the final validated data and include the positive results and estimated values. The TE values are estimated (J) when any individual congener is estimated. The TE calculations do not include RL values.

[1] Equipment blank contamination; sample concentrations greater than the CRQL and less than blank concentration are reported as non-detect (U) at the sample concentration.

[2] Field duplicate precision outside criteria; estimate (J, UJ) positive results and non-detects for the effected congeners.

[3] Congener identification criteria not met; report as non-detect (U) at the CRQL.

CL# - Number of chlorines on the congener.

J - Sample concentration is estimated for the reason(s) identified by the subscript on the "J" qualifier. If there is no subscript, the sample concentration is reported as estimated by the laboratory because it is below the lowest concentration cal

ND - No congeners in this homolog group were detected.

U - Result is not detected at the concentration presented. A subscript on the "U" qualifier indicates the result was qualified during validation for the reason(s) identified by the subscript. If there is no subscript, the result was reported as nondet

APPENDIX E

MANAGEMENT SYSTEM REVIEW AND TECHNICAL COMPLIANCE EVALUATION

SITE INSPECTION CHECKLIST AND PHOTOGRAPHS

TECHNICAL MEMORANDUM

MANAGEMENT SYSTEM REVIEW AND TECHNICAL COMPLIANCE EVALUATION

PINETTE'S SALVAGE YARD SUPERFUND SITE, WASHBURN, MAINE

AUGUST 2015

As part of the Five-Year Review for the Pinette's Salvage Yard Superfund Site, a Management System Review (MSR) has been performed. This MSR includes discussions of the status of land use within the area of the Restrictive Covenant as well as the status of the monitoring wells at the site, based on the site inspection that was performed on May 14, 2015. The MSR also presents a technical compliance evaluation, to assess whether each element of the remedy is being maintained and operated in accordance with its intended function. This technical memorandum includes the completed inspection checklist from the site inspection; annotated photographs of monitoring wells and several other relevant site features taken on that date; a technical assessment of the remedy; and recommendations for future monitoring at the site.

BACKGROUND

The 12-acre Pinette's Salvage Yard Superfund Site is located on Gardner Creek Road in the town of Washburn in Aroostook County, Maine, in the northeastern corner of the state (see Figures 1 and 2). In June 1979, three electrical transformers from Loring Air Force Base were brought to Pinette's Site, where they apparently ruptured while being removed from the delivery vehicle. Approximately 900 to 1,000 gallons of dielectric fluid containing polychlorinated biphenyls (PCBs) spilled directly onto the ground.

On October 4, 1983, EPA Region I authorized an Immediate Removal Action (IRA) for the Pinette's Site. Approximately 1,050 tons (800 cu.yds.) of PCB-contaminated soil and assorted debris were removed for disposal. In 1985, a Deletion Remedial Investigation (DRI) was initiated at the Pinette's Site to determine if any residual PCB contamination existed and whether this residual contamination was reduced sufficiently to warrant the deletion of the Site from the NPL. This investigation showed that the Site was not suitable for deletion from the NPL, and that a Supplemental Remedial Investigation (SRI) was warranted at the Pinette's Site.

The results of the SRI revealed the presence of a wide range of PCB concentrations in soils, and detectable concentrations of PCBs, benzene, chlorobenzene, 1,4-dichlorobenzene, 1,2,4-trichlorobenzene, and chloromethane were identified in groundwater within both the shallow and deep aquifers at the Site. These detectable concentrations of organic chemicals were found to be localized within and slightly downgradient of the spill area, in the vicinity of the MW-5 monitoring well cluster. Although PCBs were detected in unfiltered samples, no detectable concentrations of PCBs were identified in filtered samples obtained at the Site. The distribution of PCBs detected in the groundwater was limited to the approximate spill area.

ROD and Remedial Action Objectives

On May 30, 1989, EPA signed a ROD for the Pinette's Salvage Yard Superfund Site. Remedial response objectives were developed to mitigate existing and future threats to public health and the environment. These response objectives were:

- provide adequate protectiveness to human health against risks associated with direct contact or incidental ingestion of contaminants in the surface and subsurface soil, sediments, and from current and potential future migration of contaminants from soils to groundwater, sediments and surface water;

- provide adequate protectiveness to human health from potential risks associated with inhalation of VOCs and PCBs potentially released from the Site;

- provide adequate protectiveness to human health from risks associated with potential future consumption of groundwater;

- provide adequate protectiveness to the environment, including plants and terrestrial and aquatic wildlife, from potential adverse impacts associated with contact with contaminated surface soils/sediments, and from current and future distribution of contaminants migrating in groundwater, sediments, and surface water;

- ensure adequate protection of groundwater, air, and surface water from the continued release of contaminants from soils/sediments; and

- comply with chemical-specific, location-specific, and action-specific Applicable or Relevant and Appropriate Requirements (ARARs) and other guidance for surface and subsurface soils, groundwater, air, and surface water for both existing and future site conditions.

The cleanup approach selected in the ROD divided the remedy into two components: Source Control and Management of Migration (MOM).

Source Control. The Source Control component of the 1989 ROD established a target cleanup goal of 5 mg/Kg for PCBs in soil to be protective of human health. Target cleanup levels were also established for benzene, several chlorobenzene compounds, chloromethane, and PCBs in unsaturated and in saturated soils based on leaching potential. In order to provide protectiveness to the environment, EPA (in consultation with the U.S. Fish & Wildlife Service) determined that no soils containing greater than 1 mg/Kg would be left in the top 10 inches of soil at the site, where it would be readily accessible to terrestrial wildlife. The source control remedy also included construction of a fence around the main part of the site to temporarily limit access during remediation.

Management of Migration. The MOM component of the 1989 ROD required that contaminated groundwater containing concentrations above specified target cleanup goals be extracted from the ground and treated on-site using filtration and carbon adsorption. The 1989 ROD required active groundwater treatment to reduce the concentration of VOCs to their cleanup goals as a means of reducing the migration of PCBs. In addition, the ROD required the establishment of institutional controls on the Site for groundwater. These controls were to include a complete prohibition on the use of the on-site groundwater for drinking water purposes both during and, if necessary, following overall site remediation.

Based on the contaminants found in the on-site groundwater, and as discussed in the ROD, the following contaminants and their respective Maximum Contaminant Level (MCL) or State of Maine Maximum Exposure Guideline (MEG) were identified as appropriate groundwater cleanup goals (as stated in the 1989 ROD):

Table 1. Groundwater Cleanup Levels

Contaminant	MCL/MEG
Benzene	5 ug/L
Chlorobenzene	47 ug/L
1,4-Dichlorobenzene	27 ug/L
PCBs	0.5 ug/L

A ROD Cleanup Level for 1,2,4-trichlorobenzene of 680 ug/L was also established. Finally, groundwater cleanup goals were established for lead (5 ug/L), based on the then-proposed MCL for lead, and for chloromethane (10 ug/L), based upon the analytical detection limit of this compound in water. The ROD indicated that because the PCBs in the groundwater at the Pinette's Site were found to be largely adsorbed onto soil particles, they were likely to be difficult to collect for groundwater treatment. The ROD also indicated that while EPA would collect and treat as much of the PCBs as technically feasible, it would

probably be impossible to collect enough particulate-bound PCBs to reach the target cleanup goal. Therefore, in accordance with Section 117(a)(2) of CERCLA, the ROD invoked a waiver from compliance with the State of Maine MEG for PCBs of 0.5 ug/L based on the technical impracticability, from an engineering perspective, of attaining this level.

Remedy Implementation

The Source Control component of the remedy (as amended in June 1993) was substantially completed in November 1993. The Management of Migration component of the remedy was essentially completed in May 1996, when the requirement for active treatment of groundwater at the site was determined to be unnecessary and deleted.

Source Control. It was anticipated in the 1989 ROD that approximately 300 cubic yards (cy) of soil at the site contained >50 mg/Kg PCBs and would be removed for off-site incineration, and that 1,700 to 1,900 cy of soil contained 5 to 50 mg/Kg PCBs and would be treated on-site by solvent extraction. However, during the construction seasons of 1991 and 1992, only minimal success was achieved with on-site solvent extraction technologies. It was also determined that soils with greater than 50 mg/Kg PCBs were more widespread than anticipated. Due to the difficulties associated with the ROD-designated treatment process, the ROD was amended in June 1993. Under the amended ROD (AROD), soils with PCB concentrations of 500 mg/Kg or greater were to be incinerated off-site, and soils with 50 to 500 mg/Kg PCBs or 5 to 50 mg/Kg PCBs were to be handled by off-site land disposal, in either TSCA secure facilities or (for soils with 5 to 50 mg/Kg PCBs only) special waste landfills.

During the 1993 construction season, the extent of soil requiring removal continued to expand in response to the results of confirmation sampling at the edges of the excavation. Also, a layer of gravel from which PCB-containing liquid seeped was exposed on one side of the excavation. By the end of the excavation phase of the remediation in October 1993, about 1,000 tons of soil had been shipped off-site for incineration, and about 5,100 tons of soil had been shipped to an off-site landfill. The final activities of the 1993 construction season included backfilling and rough grading, decontamination and partial demolition and disposal of the concrete pad that had been constructed for the remedial action, and demobilization.

The approximate limits of the areas in which soils were excavated are shown on Figure 2. The excavation on the southeast side of Gardner Creek Road was mostly shallow, although it was extended to a depth of 2 feet in small areas where the depth of PCB contamination was found to be greater than the anticipated 6 inches. On the main part of the site northwest of Gardner Creek Road, the excavation was 6 feet deep over a large area. For the most part, the confirmatory sample results indicated that the target soil cleanup levels had been attained at the limit of the excavation. However, at a small number of locations, the goals were not reached for several reasons.

A silt/clay layer occurs at a depth of about 6 feet beneath much of the main part of the site. Since it was recognized that this layer would retard downward movement of contaminants, there were five locations where the excavation was not continued into that layer even though the soil cleanup levels had not been attained. Soil cleanup levels were also not attained in confirmatory samples in several locations on the perimeter of the excavation, where buildings, roads, wetlands, or a pond blocked further excavation.

Dewatering was required during the deeper excavation. Approximately one million gallons of groundwater were removed from the excavation throughout the remediation, treated, and returned to the ground in recharge trenches or surface drains. The standards for the discharged water were basically the same as the groundwater cleanup goals for the site.

The fence that had been built surrounding the site to limit access during remediation was left in place when active remediation was completed. In the summer of 1994, the final cover for the site was established by placing topsoil and final grading.

Management of Migration. Groundwater data collected during the MOM Pre-design studies in 1995, following the completion of the source control remedy, indicated that the concentrations of VOCs had decreased to below or near the cleanup level established in the 1989 ROD. Decreases in VOC levels were attributed to the natural attenuation/degradation of contaminants, to the extraction and treatment of over one million gallons of contaminated groundwater during Source Control remedial activities, and to improved (low-flow) groundwater sampling techniques. As a result, EPA promulgated an Explanation of Significant Differences (ESD) for groundwater at the Site in 1996, which stated that the primary objective of the MOM component of the ROD (to reduce the migration of PCBs) had been achieved without active treatment.

The ESD also formally changed the cleanup level for lead in groundwater from 5 ug/L to 15 ug/L, making it equal to the final MCL. The ESD further noted that the maximum concentration of lead detected in unfiltered samples since EPA began using low flow sampling in 1995 was 14.5 ug/L, below the cleanup level of 15 ug/L. The maximum concentration of PCBs detected in unfiltered monitoring well samples since the low flow sampling method was introduced was 8.5 ug/L, which was still above the ROD Cleanup Level of 0.5 ug/L. VOCs for which ROD Cleanup Levels had been established for the Site were not detected in unfiltered samples above cleanup levels after low flow sampling began.

The ESD recognized that despite the noted improvements, groundwater at the Pinette's Site still contained concentrations of PCB contaminants which would pose an unacceptable risk if ingested. Therefore, to prevent the ingestion and use of contaminated groundwater, the ESD indicated that institutional controls (e.g., deed restrictions and/or easements) would have to be established to prevent the installation of domestic wells on the Site.

Institutional controls in the form of a Restrictive Covenant were implemented at the Pinette's Site in August 2002. The Covenant defined the Restricted Area of the site as a circle, 260 feet in diameter with its center at the MW-5 monitoring well cluster. The overall purpose of the Covenant was 1) to restrict access to the groundwater at the site that contains PCBs at concentrations that exceed the MCL and MEG of 0.5 ug/L, and 2) to restrict access to the soils at the site that contain PCBs at concentrations that exceed the Maine DEP's Remedial Action Guidelines residential standard of 2 mg/Kg. To accomplish these overall objectives, the Covenant prohibits numerous activities within the Restricted Area including withdrawal or injection of water; change in land use; removal or tampering with monitoring wells and associated structures, including fencing; activities that might disturb the contaminated soil or impair the integrity of the overlying soil cover materials including construction of buildings, roads, or fills; excavation, grading, or drilling or any other disturbance of the ground; or removal, compaction, or erosion of soil or subsoil.

Based upon a recommendation from the Agency for Toxic Substance and Disease Registry (ATSDR), the ESD indicated that residential well sampling did not need to be continued. Contaminants in residential wells were determined not to be at levels of public health concern. In addition, it was noted that the site-related groundwater had been shown not to flow toward domestic wells in the surrounding area.

Finally, the ESD required that Five-Year Reviews of the Site be conducted to ensure that the remedy remains protective. At a minimum, groundwater sample collection from the monitoring well network was to continue to support Five-Year Reviews. The Five-Year Reviews were to determine whether the institutional controls were being effective and enforced; whether residential wells should be sampled; whether site conditions changed over time with respect to potential migration which would warrant a different remedial approach; and whether the institutional controls could be removed.

SITE INSPECTION

On May 14, 2015, Richard Purdy of AECOM performed an inspection of the Site. A copy of the Site Inspection Checklist is included as Attachment 1, and photographs from the site inspection are included as Attachment 2.

Compliance with the Restrictive Covenant

During the Site inspections in both 2004 and 2009, it was noted that the area used for salvage operations might have been expanded outside (northwest of) the Restricted Area. In 2015, new activities (e.g., a large tire pile) were again noted in the part of the salvage yard northwest of the Restricted Area. The site inspection did not reveal evidence of any prohibited activities having been conducted within the Restricted Area. The property owner appears to be observing the requirements of the Covenant, and there are no known current or planned changes in land use that would suggest that the institutional controls will not continue to be effective. Several photographs showing typical land use and conditions within the Restricted Area in May 2015 are included in Attachment 2.

Several fence-related issues were noted in the 2009 site inspection, and those conditions remain. For example, one side of the fence that surrounds the MW-5 well cluster has a bent vertical post, and the horizontal support pipes (middle and top of fence) are no longer connected to posts at several locations. However, the fence remains effective at limiting access to those wells, since the chain link fabric is intact. Also, sections of the fence that was built around much of the Site during the soil remediation were removed prior to 2009. As a result, 1) there is no fence on the northeast side of the Site between the MW-2 well cluster and the garage; 2) the fence that once crossed the dirt road that runs northwest from the MW-8 well cluster is gone; and 3) a relatively small gap exists in the chain link fabric between two adjacent vertical fence posts in the extreme western corner of the fenced area. Most of the fence along Gardner Creek Road is intact, as is the gate near the former MW-4 well cluster. Since only the fence around the MW-5 well cluster is subject to the Restrictive Covenant, the removals of sections of the perimeter fencing are not violations of that document.

The May 2015 inspection followed a snowy winter, and the grass-covered part of the site within the triangular area formed by the MW-5, MW-7, and MW-2 well clusters was noted to be wet and muddy. Puddles and areas of standing water were present in low parts of the Site, although most, including the area just south of the MW-1 cluster, were outside or at the fringe of the restricted area.

Condition of Monitoring Wells

Nine clusters of monitoring wells were installed at the Site in the late 1980s. Three (MW-3, MW-4, and MW-9) of those original nine clusters were described as damaged or destroyed in the site inspection associated with the first FYR (in 1999 or 2000). In November 2001, several wells were repaired, and two new overburden wells (presumably the MW-10 cluster) were installed.

Photographs showing the seven well clusters (MW-1, -2, -5, -6, -7, -8, and -10) that remain at the Site are included in Attachment 2. In 2015, the monitoring wells were found to be locked (with two exceptions) and in reasonably good condition. Problems that were noted include the following: 1) many of the well protective casings appear to have been forced upwards, possibly by freeze/thaw cycles; 2) many of the bollards that surround the wells to protect them from vehicles are bent over, some severely; 3) access to the upgradient MW-1 cluster is restricted by junked vehicles and standing water (although the standing water is probably a temporary springtime condition, caused by recent snowmelt and rainfall); 4) the caps on the protective pipes on wells SMW-10 and SMW-2 cannot be locked because the PVC well casings are above the top of the protective pipes (probably due to settlement of the protective pipes); and 5) access to the MW-10 cluster is restricted by junked vehicles, vegetation, and the fence that separates the cluster from Gardner Creek Road.

TECHNICAL COMPLIANCE EVALUATION OF REMEDY COMPONENTS

The technical compliance evaluation is conducted to determine whether the individual components of the remedy are being maintained and operated in accordance with their intended functions.

Evaluation of Intended Function

As explained below, the RAOs that were established in the 1989 ROD are being met as of 2015:

- The RAO of providing adequate protectiveness to human health against risks associated with direct contact or incidental ingestion of contaminants in the surface and subsurface soil, sediments, and from current and potential future migration of contaminants from soils to groundwater, sediments and surface water was addressed by the excavation of contaminated soil and sediment for the OU-1 remedial action and by the Restrictive Covenant.

- The RAO of providing adequate protectiveness to human health from potential risks associated with inhalation of VOCs and PCBs potentially released from the Site was addressed by the excavation of contaminated soil and sediment for the OU-1 remedial action and by the Restrictive Covenant.

- The RAO of providing adequate protectiveness to human health from risks associated with potential future consumption of groundwater was addressed by the Restrictive Covenant and by the ongoing groundwater monitoring.

- The RAO of providing adequate protectiveness to the environment, including plants and terrestrial and aquatic wildlife, from potential adverse impacts associated with contact with contaminated surface soils/sediments, and from current and future distribution of contaminants migrating in groundwater, sediments, and surface water was addressed by the excavation of contaminated soil and sediment and by the Restrictive Covenant.

- The RAO of ensuring adequate protection of groundwater, air, and surface water from the continued release of contaminants from soils/sediments was addressed by the excavation of contaminated soil and sediment for the OU-1 remedial action.

- The RAO of comply with chemical-specific, location-specific, and action-specific Applicable or Relevant and Appropriate Requirements (ARARs) and other guidance for surface and subsurface soils, groundwater, air, and surface water for both existing and future site conditions was addressed by the excavation of contaminated soil and sediment, by the Restrictive Covenant, and by the ongoing groundwater monitoring.

Groundwater Sampling Results

Groundwater samples have been collected at the Pinette's Site for each FYR since 1999. Since 1995, shortly after completion of the source control remedy, all groundwater samples from the site have been collected using the EPA Region I low flow groundwater sampling procedures. The low flow procedure provides the most representative sample of the groundwater from the monitoring wells, especially when low concentrations of particle-bound contaminants are a concern.

During the May 2015 sampling event, groundwater samples were collected from the same twelve monitoring wells that were sampled in 2009: DMW-5, SMW-5A, BMW-5, DMW-7, SMW-7A, BMW-7, DMW-2, SMW-2, DMW-6, SMW-6, DMW-8, and SMW-8 (see Figure 2). The samples were collected using peristaltic pumps in all cases except BMW-5 and BMW-7, where a bladder pump was used. The samples were analyzed for total PCBs, dissolved PCBs (filtered samples), and VOCs with one exception; well DMW-8 recharged so slowly that a sample to be filtered for analysis of dissolved PCBs was not collected.

Results for VOCs. The CLP trace VOC analysis (SOW SOM01.2) method was used for the VOC analyses in 2015. This gas chromatography/mass spectrometry (GC/MS) method is the same as that used in the 2009 sampling event and is similar to those used in earlier sampling events.

The complete VOC results for the 2015 groundwater sampling event are included in Attachment 3. A summary of the 2015 results for both VOCs and PCBs is presented in Table 2, along with 1) cleanup levels; 2) the results from three previous FYR sampling rounds (2009, 2004, and 1999); and 3) the results from samples collected at the end of the Remedial Action (RA). Table 2 shows the maximum detected concentration of each contaminant and the well in which the maximum occurred. Note that only contaminants that were detected in at least one sample collected in 2009 or 2015 are shown in Table 2.

Eight VOCs were detected in 2015, including six chlorinated benzene compounds (chlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2,3-trichlorobenzene, and 1,2,4-trichlorobenzene) and two compounds commonly associated with gasoline (methyl-tert-butyl-ether [MTBE] and toluene). Except for a trace (0.27J ug/L) concentration of 1,2,3- trichlorobenzene in SMW-2, chlorinated benzene compounds were detected only in DMW-5 and SMW-5A, the deep and shallow overburden wells in the area of the original spill. MTBE and toluene were both detected at trace levels in SMW-5A, and MTBE was the only VOC detected at DMW-2.

The 1989 ROD established cleanup goals for three of the chlorinated benzene compounds (chlorobenzene, 1,4-dichlorobenzene, and 1,2,4-trichlorobenzene), but the detected concentrations in 2015 were at least an order of magnitude below those cleanup goals. The chlorobenzene compounds are typically associated with PCBs and may function to solubilize and mobilize PCBs in groundwater; however, the concentrations are so low that significant mobilization of PCBs is unlikely. Furthermore, with the exception of toluene (which was not detected in 2009), the concentrations of all VOCs detected in 2015 were lower than the concentrations detected in 2009. Note that no VOC has been detected above a cleanup goal since the source area remedial action was completed.

Table 2. Summary of Groundwater Sampling Results

	PCBs	Chloro-benzene	Acetone	Benzene	MTBE	Toluene	1,2-Dichloro-Benzene	1,3-Dichloro-benzene	1,4-Dichloro-benzene	1,2,4-Trichloro-benzene	1,2,3-Trichloro-benzene
Cleanup Level	0.5	47	NA	5	NA	NA	NA	NA	27	680	NA
Maximum Concentration Post RA using low-flow sampling method	8.5	12	NAV	1	NAV	NAV	NAV	NAV	ND	ND	NAV
Location	DMW-5	SMW-5/5A	NA	BMW-5	NA	NA	NA	NA	NA	NA	NA
Maximum Concentration 1999	2.2	8.0	NAV	ND	NAV	NAV	NAV	NAV	ND	ND	NAV
Location	DMW-5	SMW-5/5A	NA	NA	NA	NA	NA	NA	NA	NA	NA
Maximum Concentration 2004	2.5	14	NAV	ND	NAV	NAV	NAV	NAV	11	13	NAV
Location	DMW-5	SMW-5A	NA	NA	NA	NA	NA	NA	SMW-5A	DMW-5	NA
Maximum Concentration 2009	2.1 J	8.9	7.2	0.39 J	1.4	ND	0.29 J	3.0	6.0	7.1	0.52
Location	DMW-5	SMW-5A	SMW-5A	SMW-5A	SMW-2	NA	SMW-5A	SMW-5A	SMW-5A	DMW-5	DMW-5
Maximum Concentration 2015	1.30 J	2.5	ND	ND	0.36 J	0.57	0.18 J	0.79	2.1	3.8	0.27 J
Location	DMW-5	SMW-5A	NA	NA	DMW-2	SMW-5A	DMW-5	SMW-5A	SMW-5A	DMW-5	SMW-2
	Results are in ug/L PCB results for Post RA are Total PCB Aroclors. For 1999, 2004, 2009, and 2015, the results are Total PCB Homologue groups. ND - Analyte not detected. NA – Not applicable. NAV – Not Available J – Value is estimated										

Results for PCBs. In the 2004 and 2009 sampling rounds, the PCB analyses were done using low-resolution gas chromatography/low-resolution mass spectrometry (LRGC/MS) for PCB congeners and homologue groups. However, in 2015, EPA elected to use high-resolution gas chromatography/high-resolution mass spectrometry (HRGC/MS), similar to the method that was used for the PCB analyses in

1999. Prior to 1999, PCB analyses were done using gas chromatography/electron capture detector (GC/ECD).

The complete PCB results for 2015 are included in Attachment 4. PCB results from 2009 and 2015 are summarized in Table 3. The same 12 wells were sampled in those rounds, but only wells in which PCBs were detected in one or both rounds are shown in Table 3. In 2009, PCBs were detected at six wells (SMW-5A, DMW-5, BMW-5, SMW-7A, SMW-2, and SMW-8). In 2015, PCBs were detected at those six wells and were also detected at four additional wells (DMW-7, DMW-2, DMW-8, and SMW-6). In all cases, the detections at "new" wells in 2015 were at concentrations that were lower than the lowest detected (and estimated) concentration from 2009, suggesting that the 2015 detections are a result of the switch to a high-resolution analytical method.

Table 3. Detected Concentrations of PCBs in 2009 and 2015

Well ID	Total PCB Homologues (ug/L) – 2009	Total PCB Homologues (ug/L) – 2015
DMW-5 (unfiltered)	***2.1 J***	***1.30 J****
DMW-5 (filtered)	0.031 J	***1.09 J****
BMW-5 (unfiltered)	0.03 J	0.05980
BMW-5 (filtered)	0.009 J	0.00796
SMW-5A (unfiltered)	0.0037 J	0.01140
SMW-5A (filtered)	ND	0.00110
DMW-7 (unfiltered)	ND	0.00009
DMW-7 (filtered)	ND	0.00005
SMW-7A (unfiltered)	0.0048 J	0.02000
SMW-7A (filtered)	0.0025 J	0.00569
SMW-6 (unfiltered)	ND	0.00092
SMW-2 (unfiltered)	0.04 J	0.00062
SMW-2 (filtered)	ND	0.00025
DMW-2 (unfiltered)	ND	0.00055
DMW-2 (filtered)	ND	0.00002
SMW-8 (unfiltered)	0.0012 J	ND
SMW-8 (filtered)	0.01 J	0.00003
DMW-8 (unfiltered)	ND	0.00013

Bold italic (e.g., 2.1 J) indicates that the concentration exceeds ROD cleanup goal of 0.5 ug/L
J – Value is estimated
ND – Not detected
* - Value is average of field duplicates

In 2009, only the PCB concentration in the unfiltered sample from DMW-5 (2.1J ug/L) exceeded the ROD cleanup goal of 0.5 ug/L. The filtered sample collected from DMW-5 had a PCB concentration of 0.031

ug/L, well below the cleanup goal. Conversely, in 2015, the concentrations of PCBs in both the unfiltered and the filtered samples from DMW-5 (1.30 and 1.09 ug/L, respectively) exceeded the cleanup goal. Of the other 15 samples in which PCBs were detected in 2015, only the unfiltered sample from BMW-5 had a concentration (0.05980 ug/L) that was within an order of magnitude of the cleanup goal.

DISCUSSION

- There are 16 monitoring wells at the Site that are in reasonably good condition and could be sampled in future rounds (barring future damage). The wells are at the following clusters: MW-1 (2 wells); MW-2 (2 wells); MW-5 (3 wells); MW-6 (2 wells); MW-7 (3 wells); MW-8 (2 wells); and MW-10 (2 wells).

- In 2009 and 2015, the 12 wells in the MW-2, -5, -6, -7, and -8 well clusters were sampled. The wells at the MW-1 cluster have not been sampled for at least 10 years. MW-1 is the upgradient cluster, and any results from sampling those wells would not be particularly relevant to current issues at this site. The MW-10 wells were last sampled in 2004, and PCBs were not detected. In 2009, when 12 wells were selected for sampling, the deep overburden and bedrock wells at the MW-7 cluster were selected over the MW-10 wells, since they are more directly downgradient of the original spill and had not been sampled in 2004.

- Of the wells that were sampled for the last three FYRs, only one (DMW-5) has yielded samples that exceeded a ROD cleanup level (0.5 ug/L of PCBs). VOCs have not been detected at concentrations above cleanup levels in any well since completion of the source control RA.

- In 2015, PCBs were detected at nine wells at concentrations below 0.5 ug/L (the cleanup goal). Of those nine wells, the concentrations of PCBs were more than an order of magnitude below the cleanup goal in all but one (BMW-5), where the PCB concentration in the unfiltered sample was 0.05980 ug/L.

- The concentration of PCBs detected at DMW-5 in May 2015, 1.30 ug/L (the average of the results from an unfiltered sample and a duplicate - 1.26 and 1.34 ug/L), is lower than the concentration detected in 2009 (2.1 ug/L), and significantly less than the concentration detected during the post RA sampling (8.5 ug/L).

- In 2015, PCBs were detected in four wells in which there were no detections of PCBs in 2009, potentially indicating an expansion of the area of groundwater contaminated with PCBs. However, in all cases, the concentrations detected in 2015 were lower than the lowest concentration detected in 2009, suggesting that the apparent expansion of PCB contamination in 2015 was a result of the lower reporting limits associated with the high-resolution analytical method (a low-resolution analytical method was used in 2009) rather than an actual plume expansion.

- No evidence of soil disturbance or well installation has been noted within the area protected by the Restrictive Covenant since it was established in 2002. That area has been used for storage of junked vehicles and other salvageable items for decades and is anticipated to remain so for the foreseeable future. Most of the vehicles are stored on the concrete pads that were built during the soil remediation and were left in place; note that the concrete was sampled in 2001 and found to have low PCB concentrations that pose no unacceptable risks.

RECOMMENDATIONS FOR FUTURE FYR SAMPLING EVENTS

- ***Collect samples only from the six wells in the MW-5 and MW-7 well clusters (SMW-5A, DMW-5, BMW-5, SMW-7A, DMW-7, and BMW-7)***

- ***Collect only unfiltered samples except at DMW-5, where filtered samples should also be collected***

- ***Analyze the samples for VOCs using the CLP trace VOC analysis (SOW SOM01.2) GC/MS method, or equivalent***

- ***Analyze the samples for PCBs using high-resolution gas chromatography/high-resolution mass spectrometry (HRGC/MS) method for PCB congeners and homologue groups, or equivalent.***

Rationale for Recommendations

VOCs have not been detected above cleanup levels for about 20 years, and the concentrations of chlorinated benzene compounds have been trending downward since 2004. Since the source area soils were remediated in the early 1990s, an increase in VOC concentrations is unlikely. While a release of VOC-containing fluids from vehicles and other items in the salvage yard is possible, such releases would only be potentially consequential (in terms of facilitating the migration of PCBs) if they occurred in the original spill area, where the MW-5 well cluster is located.

Despite the rationale that exists for ceasing VOC analyses at the Site, AECOM recommends that they be continued for two reasons. First, cleanup levels exist for several VOCs, and for future FYRs, being able to confirm that VOC concentrations remain below those levels has value. Second, wells are going to be sampled for PCB analyses anyway, so the marginal cost of collecting and analyzing samples for VOCs is modest.

Regarding the selection of wells for future sampling events, PCBs have not been detected above the cleanup level in any well except DMW-5 for about 20 years. Between 2009 and 2015, PCB concentrations showed apparent increases only in wells BMW-5 and SMW-7A (this excludes wells which were ND in 2009 and had detections in 2015 that were below the 2009 reporting limit). Furthermore, the concentrations in those two wells in 2015 were only modestly higher than in 2009, and the 2009 concentrations were estimated (below the reporting limit) and flagged due to a potential low bias. Therefore, the increases may not have been real and were, in any case, insignificant.

PCBs were detected in SMW-2 and SMW-8 (at concentrations more than an order of magnitude below the cleanup level) in 2009. In 2015, PCBs were again detected in these two shallow wells and in the associated deep wells, but the concentrations were lower than the 2009 detections or reporting limits and were at least two orders of magnitude below the cleanup level.

Regarding the collection of only unfiltered samples except at DMW-5, even though unfiltered samples may contain particle-bound PCBs that would be removed by filtering, and PCB results from filtered samples are usually 2 to 10 times lower than the unfiltered sample results, the concentrations in the samples from all the wells except DMW-5 are so far below the cleanup level that the difference between the filtered and unfiltered is somewhat irrelevant. In 2015, for the first time in recent sampling events, the results from the filtered sample (and duplicate) from DMW-5 were essentially equal to the results from the unfiltered sample and duplicate. The reason(s) for these atypical results are unknown. Since colloidal-sized particles can be smaller than 0.45 microns (the filter size used for the samples from this Site), filtering can have different effects in different samples.

Regarding the analytical method for the PCB analyses, the high-resolution gas chromatography/high-resolution mass spectrometry (HRGC/MS) analytical method that was used for PCB analyses in 2015 is more robust than the low-resolution method that was used in 2004 and 2009. It is recommended that the HRGC/MS method be used in future sampling events.

Please note that "O&M" is referred to throughout this checklist. At sites where Long-Term Response Actions are in progress, O&M activities may be referred to as "system operations" since these sites are not considered to be in the O&M phase while being remediated under the Superfund program.

Five-Year Review Site Inspection Checklist (Template)

(Working document for site inspection. Information may be completed by hand and attached to the Five-Year Review report as supporting documentation of site status. "N/A" refers to "not applicable.")

I. SITE INFORMATION

Site name: PINETREE SALVAGE	**Date of inspection:** 5-14-15
Location and Region: WAKEFIELD MA	**EPA ID:** MED980732291
Agency, office, or company leading the five-year review: AECOM	**Weather/temperature:** SUNNY 50°F

Remedy Includes: (Check all that apply)

- G Landfill cover/containment
- ✓ Access controls
- ✓ Institutional controls
- G Groundwater pump and treatment
- G Surface water collection and treatment
- G Other _____
- G Monitored natural attenuation
- G Groundwater containment
- G Vertical barrier walls

Attachments: G Inspection team roster attached G Site map attached

II. INTERVIEWS (Check all that apply)

1. **O&M site manager** _____ _____ _____
   Name Title Date
   Interviewed G at site G at office G by phone Phone no. _____
   Problems, suggestions; G Report attached _____

2. **O&M staff** _____ _____ _____
   Name Title Date
   Interviewed G at site G at office G by phone Phone no. _____
   Problems, suggestions; G Report attached _____

3. **Local regulatory authorities and response agencies** (i.e., State and Tribal offices; emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices; etc.). Fill in all that apply.

Agency _____
Contact _____ _____ _____ _____
Name Title Date Phone no.
Problems; suggestions; G Report attached _____

Agency _____
Contact _____ _____ _____ _____
Name Title Date Phone no.
Problems; suggestions; G Report attached _____

Agency _____
Contact _____ _____ _____ _____
Name Title Date Phone no.
Problems; suggestions; G Report attached _____

Agency _____
Contact _____ _____ _____ _____
Name Title Date Phone no.
Problems; suggestions; G Report attached _____

4. **Other interviews** (optional) G Report attached.

SEE INTERVIEW WITH ~~T GARDNER~~ R FARRUX

ALSO SPOKE WITH ROGER PINETTE.

III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

1.	**O&M Documents**			
	G O&M manual	G Readily available	G Up to date	G N/A
	G As-built drawings	G Readily available	G Up to date	G N/A
	G Maintenance logs	G Readily available	G Up to date	G N/A
	Remarks			
2.	**Site-Specific Health and Safety Plan**	G Readily available	G Up to date	G N/A
	G Contingency plan/emergency response plan	G Readily available	G Up to date	G N/A
	Remarks			
3.	**O&M and OSHA Training Records**	G Readily available	G Up to date	G N/A
	Remarks			
4.	**Permits and Service Agreements**			
	G Air discharge permit	G Readily available	G Up to date	G N/A
	G Effluent discharge	G Readily available	G Up to date	G N/A
	G Waste disposal, POTW	G Readily available	G Up to date	G N/A
	G Other permits	G Readily available	G Up to date	G N/A
	Remarks			
5.	**Gas Generation Records**	G Readily available	G Up to date	G N/A
	Remarks			
6.	**Settlement Monument Records**	G Readily available	G Up to date	G N/A
	Remarks			
7.	**Groundwater Monitoring Records**	G Readily available	G Up to date	G N/A
	Remarks			
8.	**Leachate Extraction Records**	G Readily available	G Up to date	G N/A
	Remarks			
9.	**Discharge Compliance Records**			
	G Air	G Readily available	G Up to date	G N/A
	G Water (effluent)	G Readily available	G Up to date	G N/A
	Remarks			
10.	**Daily Access/Security Logs**	G Readily available	G Up to date	G N/A
	Remarks			

IV. O&M COSTS

1. **O&M Organization**
   - G State in-house
   - G PRP in-house
   - G Federal Facility in-house
   - G Contractor for State
   - G Contractor for PRP
   - G Contractor for Federal Facility
   - G Other _____

2. **O&M Cost Records**
   - G Readily available G Up to date
   - G Funding mechanism/agreement in place
   - Original O&M cost estimate _____ G Breakdown attached

   Total annual cost by year for review period if available

   From _____ To _____ _____ G Breakdown attached
   Date Date Total cost

   From _____ To _____ _____ G Breakdown attached
   Date Date Total cost

   From _____ To _____ _____ G Breakdown attached
   Date Date Total cost

   From _____ To _____ _____ G Breakdown attached
   Date Date Total cost

   From _____ To _____ _____ G Breakdown attached
   Date Date Total cost

3. **Unanticipated or Unusually High O&M Costs During Review Period**
   Describe costs and reasons: _____

V. ACCESS AND INSTITUTIONAL CONTROLS ✓ Applicable G N/A

A. Fencing

1. **Fencing damaged** G Location shown on site map G Gates secured G N/A
   Remarks BROKEN FENCE IN NE CORNER. GATE UNLOCKED DURING BUSINESS HOURS; BROKEN FENCED AREA AROUND #5

B. Other Access Restrictions

1. **Signs and other security measures** G Location shown on site map ✓ N/A
   Remarks RU AREA NOT POSTED

C. Institutional Controls (ICs)

1. **Implementation and enforcement**

Site conditions imply ICs not properly implemented — G Yes ☑ No G N/A
Site conditions imply ICs not being fully enforced — G Yes ☑ No G N/A

Type of monitoring (e.g., self-reporting, drive by) ON-SITE INSPECTION
Frequency 5YR REVIEW
Responsible party/agency AECOM
Contact RICHARD PUROY (Name) CHEMIST (Title) 5/14/15 (Date) 781-224-6654 (Phone no.)

Reporting is up-to-date — G Yes G No ☑ N/A
Reports are verified by the lead agency — G Yes G No ☑ N/A

Specific requirements in deed or decision documents have been met — G Yes G No G N/A
Violations have been reported — G Yes G No G N/A
Other problems or suggestions: G Report attached

2. **Adequacy** ☑ ICs are adequate G ICs are inadequate G N/A
Remarks

D. General

1. **Vandalism/trespassing** G Location shown on site map ☑ No vandalism evident
Remarks

2. **Land use changes on site** G N/A
Remarks SAME USE; SITE APPEARS TO HAVE ENCROACHED TO THE NORTH

3. **Land use changes off site** G N/A
Remarks

VI. GENERAL SITE CONDITIONS

A. Roads G Applicable G N/A

1. **Roads damaged** G Location shown on site map ☑ Roads adequate G N/A
Remarks

B. Other Site Conditions

Remarks WORKING SALVAGE YARD, VERY SOGGY AFTER HARD WINTER. DIRT ROADS, SCRAP PILES, SOME FENCING, ROLL DOORS

VII. LANDFILL COVERS G Applicable G N/A

A. Landfill Surface

1. **Settlement** (Low spots) G Location shown on site map G Settlement not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Cracks** G Location shown on site map G Cracking not evident
   Lengths_____ Widths_____ Depths_____
   Remarks_____

3. **Erosion** G Location shown on site map G Erosion not evident
   Areal extent_____ Depth_____
   Remarks_____

4. **Holes** G Location shown on site map G Holes not evident
   Areal extent_____ Depth_____
   Remarks_____

5. **Vegetative Cover** G Grass G Cover properly established G No signs of stress
   G Trees/Shrubs (indicate size and locations on a diagram)
   Remarks_____

6. **Alternative Cover (armored rock, concrete, etc.)** G N/A
   Remarks_____

7. **Bulges** G Location shown on site map G Bulges not evident
   Areal extent_____ Height_____
   Remarks_____

8. **Wet Areas/Water Damage** G Wet areas/water damage not evident
- ☑ Wet areas — ☑ Location shown on site map — Areal extent
- ☑ Ponding — ☑ Location shown on site map — Areal extent
- G Seeps — G Location shown on site map — Areal extent
- G Soft subgrade — G Location shown on site map — Areal extent

Remarks EDGE - OPAQUE
PUDDLES / PONDING - GREEN

9. **Slope Instability** G Slides G Location shown on site map ☒ No evidence of slope instability
Areal extent
Remarks

B. Benches G Applicable G N/A
(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)

1. **Flows Bypass Bench** G Location shown on site map G N/A or okay
Remarks

2. **Bench Breached** G Location shown on site map G N/A or okay
Remarks

3. **Bench Overtopped** G Location shown on site map G N/A or okay
Remarks

C. Letdown Channels G Applicable G N/A
(Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)

1. **Settlement** G Location shown on site map G No evidence of settlement
Areal extent Depth
Remarks

2. **Material Degradation** G Location shown on site map G No evidence of degradation
Material type Areal extent
Remarks

3. **Erosion** G Location shown on site map G No evidence of erosion
Areal extent Depth
Remarks

4. **Undercutting** G Location shown on site map ☒ No evidence of undercutting
Areal extent_____ Depth_____
Remarks_____

5. **Obstructions** Type AUTOMOBILES G No obstructions
G Location shown on site map Areal extent_____
Size_____
Remarks THROUGHOUT THE SITE

6. **Excessive Vegetative Growth** Type_____
☒ No evidence of excessive growth
G Vegetation in channels does not obstruct flow
G Location shown on site map Areal extent_____
Remarks_____

D. Cover Penetrations G Applicable (G N/A)

1. **Gas Vents** G Active G Passive
G Properly secured/locked G Functioning G Routinely sampled G Good condition
G Evidence of leakage at penetration G Needs Maintenance
G N/A
Remarks_____

2. **Gas Monitoring Probes**
G Properly secured/locked G Functioning G Routinely sampled G Good condition
G Evidence of leakage at penetration G Needs Maintenance G N/A
Remarks_____

3. **Monitoring Wells** (within surface area of landfill)
G Properly secured/locked G Functioning G Routinely sampled G Good condition
G Evidence of leakage at penetration G Needs Maintenance G N/A
Remarks_____

4. **Leachate Extraction Wells**
G Properly secured/locked G Functioning G Routinely sampled G Good condition
G Evidence of leakage at penetration G Needs Maintenance G N/A
Remarks_____

5. **Settlement Monuments** G Located G Routinely surveyed G N/A
Remarks_____

E. Gas Collection and Treatment G Applicable X N/A

1. **Gas Treatment Facilities**
   G Flaring G Thermal destruction G Collection for reuse
   G Good condition G Needs Maintenance
   Remarks

2. **Gas Collection Wells, Manifolds and Piping**
   G Good condition G Needs Maintenance
   Remarks

3. **Gas Monitoring Facilities** (*e.g.*, gas monitoring of adjacent homes or buildings)
   G Good condition G Needs Maintenance G N/A
   Remarks

F. Cover Drainage Layer G Applicable X N/A

1. **Outlet Pipes Inspected** G Functioning G N/A
   Remarks

2. **Outlet Rock Inspected** G Functioning G N/A
   Remarks

G. Detention/Sedimentation Ponds G Applicable X N/A

1. **Siltation** Areal extent_____ Depth_____ G N/A
   G Siltation not evident
   Remarks

2. **Erosion** Areal extent_____ Depth_____
   G Erosion not evident
   Remarks

3. **Outlet Works** G Functioning G N/A
   Remarks

4. **Dam** G Functioning G N/A
   Remarks

H. Retaining Walls G Applicable X N/A

1. **Deformations** G Location shown on site map G Deformation not evident
   Horizontal displacement_____ Vertical displacement_____
   Rotational displacement_____
   Remarks_____

2. **Degradation** G Location shown on site map G Degradation not evident
   Remarks_____

I. Perimeter Ditches/Off-Site Discharge G Applicable X N/A

1. **Siltation** G Location shown on site map G Siltation not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Vegetative Growth** G Location shown on site map G N/A
   G Vegetation does not impede flow
   Areal extent_____ Type_____
   Remarks_____

3. **Erosion** G Location shown on site map G Erosion not evident
   Areal extent_____ Depth_____
   Remarks_____

4. **Discharge Structure** G Functioning G N/A
   Remarks_____

VIII. VERTICAL BARRIER WALLS G Applicable X N/A

1. **Settlement** G Location shown on site map G Settlement not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Performance Monitoring** Type of monitoring_____
   G Performance not monitored
   Frequency_____ G Evidence of breaching
   Head differential_____
   Remarks_____

IX. GROUNDWATER/SURFACE WATER REMEDIES G Applicable G N/A

A. Groundwater Extraction Wells, Pumps, and Pipelines G Applicable G N/A

1. **Pumps, Wellhead Plumbing, and Electrical**
   G Good condition G All required wells properly operating G Needs Maintenance G N/A
   Remarks

2. **Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances**
   G Good condition G Needs Maintenance
   Remarks

3. **Spare Parts and Equipment**
   G Readily available G Good condition G Requires upgrade G Needs to be provided
   Remarks

B. Surface Water Collection Structures, Pumps, and Pipelines G Applicable G N/A

1. **Collection Structures, Pumps, and Electrical**
   G Good condition G Needs Maintenance
   Remarks

2. **Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances**
   G Good condition G Needs Maintenance
   Remarks

3. **Spare Parts and Equipment**
   G Readily available G Good condition G Requires upgrade G Needs to be provided
   Remarks

C. Treatment System G Applicable (G N/A)

1. **Treatment Train** (Check components that apply)
   - G Metals removal
   - G Oil/water separation
   - G Bioremediation
   - G Air stripping
   - G Carbon adsorbers
   - G Filters
   - G Additive (*e.g.*, chelation agent, flocculent)
   - G Others
   - G Good condition
   - G Needs Maintenance
   - G Sampling ports properly marked and functional
   - G Sampling/maintenance log displayed and up to date
   - G Equipment properly identified
   - G Quantity of groundwater treated annually
   - G Quantity of surface water treated annually
   - Remarks

2. **Electrical Enclosures and Panels** (properly rated and functional)
   - G N/A
   - G Good condition
   - G Needs Maintenance
   - Remarks

3. **Tanks, Vaults, Storage Vessels**
   - G N/A
   - G Good condition
   - G Proper secondary containment
   - G Needs Maintenance
   - Remarks

4. **Discharge Structure and Appurtenances**
   - G N/A
   - G Good condition
   - G Needs Maintenance
   - Remarks

5. **Treatment Building(s)**
   - G N/A
   - G Good condition (esp. roof and doorways)
   - G Needs repair
   - G Chemicals and equipment properly stored
   - Remarks

6. **Monitoring Wells** (pump and treatment remedy)
   - G Properly secured/lockedG Functioning
   - G Routinely sampled
   - G Good condition
   - G All required wells located
   - G Needs Maintenance
   - G N/A
   - Remarks

D. Monitoring Data

1. Monitoring Data
   - G Is routinely submitted on time
   - G Is of acceptable quality

2. Monitoring data suggests:
   - G Groundwater plume is effectively contained
   - G Contaminant concentrations are declining

D. Monitored Natural Attenuation

1. **Monitoring Wells** (natural attenuation remedy)
✓ Properly secured/locked ✓ Functioning G Routinely sampled ✓ Good condition
✓ All required wells located G Needs Maintenance G N/A
Remarks: R. WELL PIPE @ SMW-10 ABOVE TOP OF RISER, COULD NOT BE LOCKED

X. OTHER REMEDIES

If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.

XI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).

REMEDY IS RESTRICTIVE USE PROHIBITING WELLS WITHIN 150 FOOT RADIUS OF THE MW-5 CLUSTER

THE MW-5 CLUSTER IS FENCED & LOCKED. NO BUILDING OR SUBSURFACE ACTIVITIES APPARENT WITHIN RESTRICTED AREA.

B. Adequacy of O&M

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.

CLUSTER MW-5 IS SECURE ALTHOUGH FENCE IS DAMAGED. NO APPARENT ADVERSE IMPACT.

ACTUAL BOUNDARY FOR RESTRICTED AREA IS NOT VISIBLE.

C. Early Indicators of Potential Remedy Problems

Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs, that suggest that the protectiveness of the remedy may be compromised in the future.

NONE

D. Opportunities for Optimization

Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy.

NONE

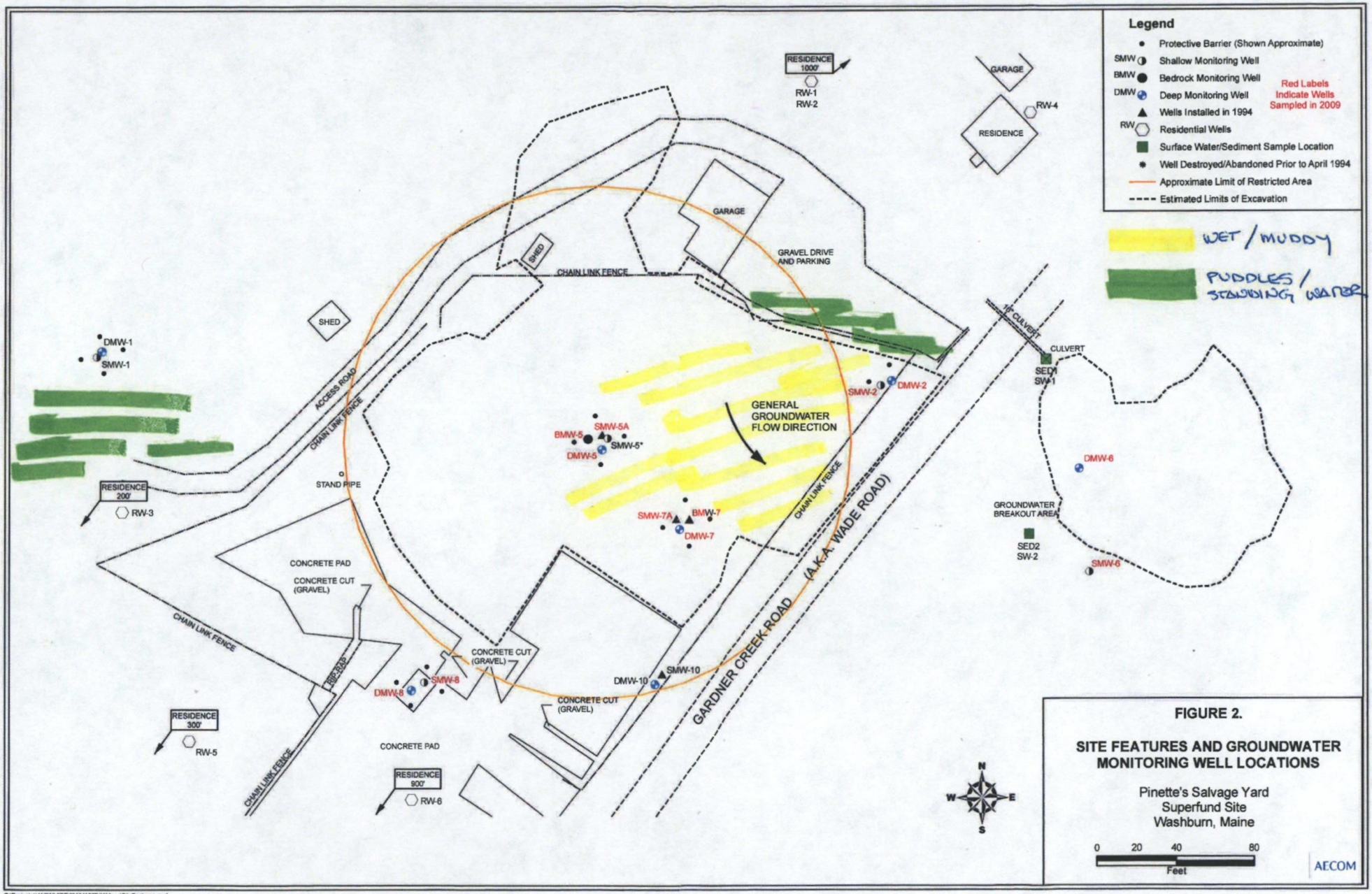

FIGURE 2.

SITE FEATURES AND GROUNDWATER MONITORING WELL LOCATIONS

Pinette's Salvage Yard
Superfund Site
Washburn, Maine

AECOM

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Photo #1. MW-1 Well Cluster (Access is impeded by standing water, junked vehicles, and vegetation, and bollards are no longer vertical). May 2015.

Photo #2. MW-2 Well Cluster. May 2015.

Photo #3. MW-5 Well Cluster (Note damage to horizontal support pipes in fence). May 2015.

Photo #4. Well DMW-6. May 2015.

Photo #5. Well SMW-6 (Protective casing appears to have been thrust upwards). May 2015.

Photo #6. MW-7 Well Cluster (Western part of Restricted Area, showing vehicles parked on concrete pad). May 2015.

Photo #7. MW-8 Well Cluster. May 2015.

Photo #8. Remnants of MW-9 Well Cluster (Destroyed about 15 years ago). May 2015.

Photo #9. MW-10 Well Cluster. May 2015.

Photo #10. View to the Northwest from near the MW-8 Well Cluster (Note tire pile in background, outside Restricted Area). May 2015.

Photo #11. Groundwater Breakout Area (On east side of Gardner Creek Road). May 2015.

Photo #12. View of Restricted Area (Looking north past MW-5 and MW-7 Well Clusters, garage visible in background above MW-7 Cluster). May 2015.

Photo #13. View of Restricted Area (Looking west toward MW-7 Well Cluster; MW-5 Well Cluster is behind trucks on right side of photo). May 2015.

Photo #14. MW-5 Well Cluster (Note minor damage to fence on right side, partly open undamaged gate on left side). May 2015.

Photo #15. Scrap metal pile behind garage (Just outside of Restricted Area). May 2015.

Photo #16. Salvaged items north (outside) of Restricted Area (note standing water in foreground). May 2015.

APPENDIX F

INTERVIEW RECORD LOGS

INTERVIEW DOCUMENTATION FORM

The following is a list of individuals interviewed for this five-year review. See the attached contact record(s) for a detailed summary of the interviews.

Name	Title/Position	Organization	Date
Mr. Adam Doody	Code Enforcer	Town of Washburn	4-23-15
Name	Title/Position	Organization	Date
Mr. Brian Beneski	Director	MEDEP Bureau of Remediation and Waste Management	4-10-15
Name	Title/Position	Organization	Date
Mr. Roger Pinette	Property Owner	N/A	4-9-15
Name	Title/Position	Organization	Date
Ms. Reena Tarbox	Neighbor/Daughter of Mr. Pinette	N/A	5-14-15

INTERVIEW RECORD

Site Name: Pinettes Salvage Yard Superfund Site		**EPA ID No.:** MED980732291
Subject: Fourth Five Year Review	**Time:** 1340	**Date:** 4/23/15
Type: ☒ Telephone ☐ Visit ☐ Other **Location of Interview:**	☐ Incoming	☒ Outgoing

Contact Made By:

Name:	**Title:**	**Organization:**
Almerinda Silva	Project Manager	EPA

Individual Contacted:

Name:	**Title:**	**Organization:**
Adam Doody	Code Enforcer	Town of Washburn
Telephone No: 207-455-8485 **Fax No:** **E-Mail Address:** ceo.Ipi@washburnmaine.org	**Street Address:** Town Hall Washburn, ME	

1. What is your overall impression of the project? (general sentiment)

Don't have any concerns.

2. Are you aware of any health or safety issues associated with the site?

Doesn't know of any.

3. Are you aware of any new water supply wells having been or planned to be drilled near the Site, or of other hydraulic impacts that may be impacting groundwater flow?

No.

4. Have there been any unusual or unexpected activities or events at the site (e.g., flooding)?

The river iced up and flooded the road last week (south of Roger's property) but did not reach his property.

5. Has the site been the subject of any community concerns or complaints (e.g., odor, noise, health, etc.)?

No.

6. Do you feel well informed about site activities and progress of the cleanup, and do you have any comments, suggestions, or recommendations regarding the project?

He had no comments, suggestions, or recommendations regarding the project.

7. Are there any areas of known or suspected contamination at the site that you feel are not being adequately addressed by the remedial actions?

Not that he is aware of.

8. What is the zoning of the property (is it compatible with the current land use of auto salvage)?

The zoning is rural residential farm land. Roger has been there a long time before any of us came along. The current use of the property is allowed under the zoning.

9. Are you aware of the restrictive covenant established in 2002 which prohibits excavation, construction, change in land use, etc on part of the property?

Yes

10. Is there any other information that you wish to share that might be of use?

No.

11. What is your role with the Town?

I do whatever my boss Beverly Turner, the Town Manager, tells me to do. It can range from site inspector, sewer inspector, to burying people.

INTERVIEW RECORD

Site Name: Pinettes Salvage Yard Superfund Site		**EPA ID No.:** MED980732291
Subject: Fourth Five Year Review	**Time:** 1400 hours	**Date:** 4-10-15
Type: ☐ Telephone ☐ Visit ☒ Other (email) **Location of Visit:**	☐ Incoming	☒ Outgoing

Contact Made By:

Name:	**Title:**	**Organization:**
Almerinda Silva	Project Manager	EPA

Individual Contacted:

Name:	**Title:**	**Organization:**
Brian Beneski	Director	Maine DEP Bureau of Remediation and Waste Management
Telephone No: 207-287-4858 **Fax No:** **E-Mail Address:** Brian.Beneski@maine.gov	**Street Address:** ME DEP Bureau of Remediation and Waste Management 17 State House Station, Augusta, ME 04333-0017	

1. What is your overall impression of the project? (general sentiment)

Overall impression is ok; there hasn't been much going on regarding it. Monitoring happens only every five years and it is in such a rural area and no one is impacted off site.

2. Has the site been the subject of any comments or complaints directed to your agency?

No comments or complaints. The site is in a rural, depressed area, so no one has been looking to redevelop it or complain about it.

3. Do you have any recommendations for reducing or increasing activities at the site?

The site itself is still a junkyard, although very minimally used. It is in a part of the town/state that is not actively looking for property to develop. Its chances for redevelopment/are minimal. Washburn is not lacking under-utilized property.

4. Are there any areas of known or suspected contamination at the site that you

feel are not being adequately addressed by the remedial actions?

No.

5. Are you aware of any problems or issues related to the restrictive covenant established in 2002 which prohibits excavation, construction, change in land use, etc on part of the property?

No. Last time I was there, the owner was following the covenant; and since no one has been actively trying to develop the site, I don't think it has hindered any redevelopment options. The Town would have a better idea of that though.

6. Are you aware of any new water supply wells having been or planned to be drilled near the Site, or of other hydraulic impacts that may be impacting groundwater flow?

No.

7. Is there any other information that you wish to share that might be of use?

No.

INTERVIEW RECORD

Site Name: Pinettes Salvage Yard Superfund Site		**EPA ID No.:** MED980732291
Subject: Fourth Five Year Review	**Time:** 1530 hours	**Date:** 4-09-15
Type: ☒ Telephone ☐ Visit ☐ Other **Location of Interview:**		☐ Incoming ☒Outgoing

Contact Made By:

Name:	**Title:**	**Organization:**
Almerinda Silva	Project Manager	EPA

Individual Contacted:

Name:	**Title:**	**Organization:**
Roger Pinette	Site Owner	N/A
Telephone No: 207-455-8197 **Fax No:** **E-Mail Address:**	**Street Address:** 139 Gardner Creek Road, Washburn, ME	

1. What is your overall impression of the project? (general sentiment)

OK. He is aware of people coming out to the site to sample, but has not received a report with results. A report was mailed to him on April 13, 2015.

2. Do you have any comments, suggestions, or recommendations regarding the project?

No.

3. Are you aware of any new water supply wells having been drilled near the Site, or of other hydraulic impacts that may be impacting groundwater flow?

No

4. Is there any known surficial soil contamination at the property, either from the original spill or from more recent spills?

No.

5. Has site ownership changed?

No.

6. Has site occupancy changed? Are there any occupancy changes in the foreseeable future? If so, please describe.

Yes. My daughter Reena Tarbox lives at my old house on-site and my wife Brenda and I live next door in my mother's old house at 139 Gardner Creek Road; but I own both properties.

7. What is the zoning of the property? Are there any institutional controls/deed restrictions in place?

Roger didn't know the zoning of the property; was aware of the institutional control that restricted certain activities within a 130' radius of well cluster #5. Roger was not aware of any new changes.

8. What are the current uses of the property?

Roger said that he accepts a few vehicles a year that then get sold; also takes in some appliances that get sold for scrap.

9. How frequently are authorized individuals present at the property (days/week)?

Roger said that his time at the Site varies, now that he is retired.

10. What are the planned future uses of the property (if different from current uses)?

No changes from the current use planned.

11. Is groundwater currently used on the property?

No.

12. Are there plans to use groundwater on-site in the future?

No.

13. What measures have been taken to secure the site and the contaminated areas (e.g., fencing, locks, etc.)? How successful have these measures been?

The only security at the Site is the fencing left behind by past EPA actions. The fence is still in place and intact.

14. Is there evidence or sightings of trespassers on the property? If yes, how often and what type of activities do they engage in?

Some people were caught trespassing but the police took care of it.

15. Have there been any events of vandalism at the property?

There was an attempt but police addressed it.

16. Have there been any unusual or unexpected activities or events at the site (e.g., flooding)?

No.

Wrap-Up

17. Do you have any recommendations for reducing or increasing activities at the site?

No.

18. Is there any other information that you wish to share that might be of use?

No.

INTERVIEW RECORD

Site Name: Pinettes Salvage Yard Superfund Site		**EPA ID No.:** MED980732291
Subject: Fourth Five Year Review		**Time:** 9:30 **Date:** 5-14-15
Type: ~~☐ Telephone~~ ☐ Visit ~~☐ Other~~ **Location of Interview:**		☐ Incoming ☐ Outgoing

Contact Made By:

Name: Richard Purdy	**Title:** Chemist	**Organization:** AECOM

Individual Contacted:

Name: Reena Tarbox	**Title:** Neighbor/ Resident	**Organization:** N/A
Telephone No: 207-455-5905 **Fax No:** **E-Mail Address:**	**Street Address:** 181 Gardner Creek Road, Washburn. Maine	

1. Are you aware of the Site, and if yes, what is your overall impression of the project? (general sentiment)

Yes; seems ok.

2. Do you have any comments, suggestions, or recommendations regarding the project?

No.

3. Are you aware of any new water supply wells having been drilled near the Site, or of other hydraulic impacts that may be impacting groundwater flow?

No.

4. Is there evidence or sightings of trespassers on the property? If yes, how often and what type of activities do they engage in?

No.

5. Have there been any unusual or unexpected activities or events at the site (e.g., flooding)?

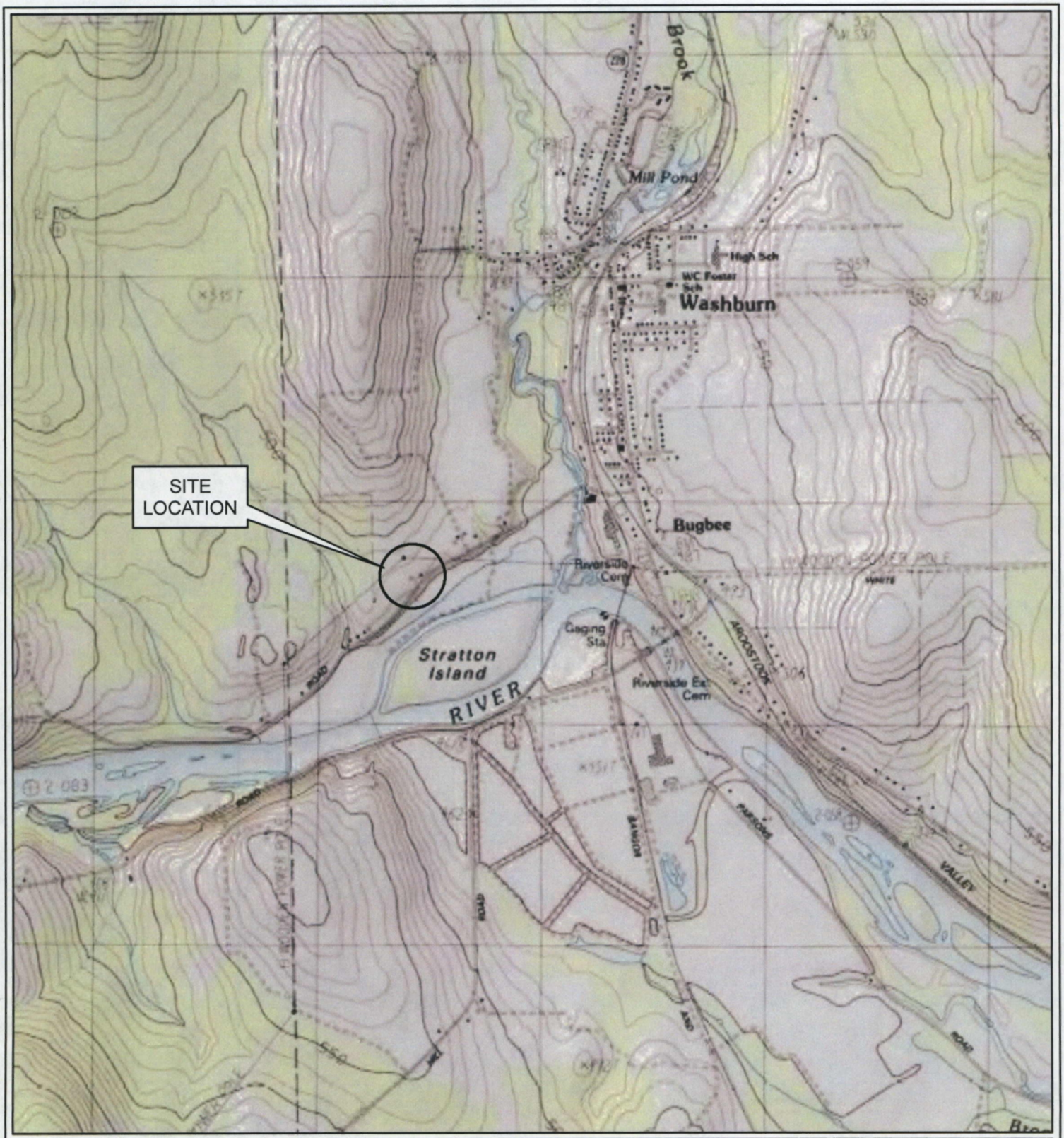
No.

6. Is there any other information that you wish to share that might be of use?

No.

APPENDIX G

FIGURES



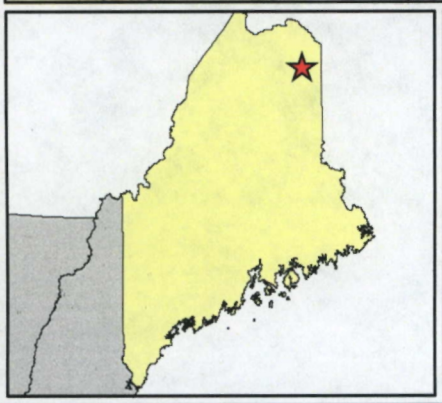


FIGURE 1.

SITE LOCATION MAP

Pinette's Salvage Yard
Superfund Site
Washburn, Maine

N
W E
S

1 inch = 2,000 feet

0 600 1,200 2,400
Feet

AECOM

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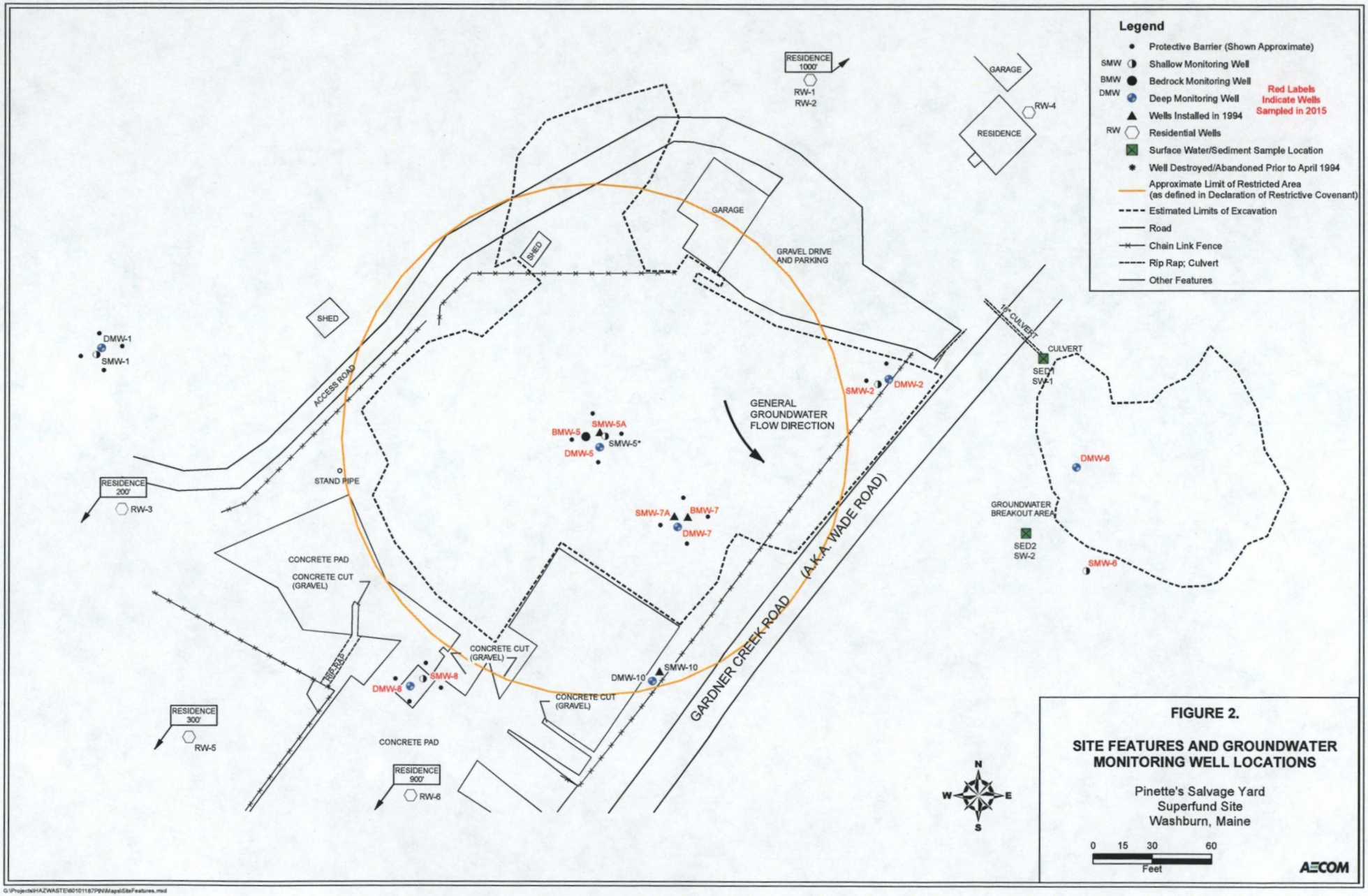

FIGURE 2.

SITE FEATURES AND GROUNDWATER MONITORING WELL LOCATIONS

Pinette's Salvage Yard
Superfund Site
Washburn, Maine

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APPENDIX H

PRESS RELEASE

EPA New England News Release
Protecting Human Health and the Environment

News Release

U.S. Environmental Protection Agency
New England Regional Office
January 5, 2015

Contact: Emily Bender, 617-918-1037

EPA Will Review 24 Hazardous Site Cleanups during 2015

Boston, Mass.– EPA will review site clean ups and remedies at 20 Superfund Sites and oversee reviews at 4 Federal Facilities across New England this year by doing scheduled Five-Year Reviews at each site.

EPA conducts evaluations every five years on previously-completed clean up and remediation work performed at Superfund sites and Federal Facilities listed on the "National Priorities List" (aka Superfund sites) to determine whether the implemented remedies at the sites continue to be protective of human health and the environment. Further, five year review evaluations identify any deficiencies to the previous work and, if called for, recommend action(s) necessary to address them.

The Superfund Sites where EPA will begin Five Year Reviews in FY' 2015 (October 1, 2014 through September 30, 2015) are below. Please note, the Web link provided after each site provides detailed information on the site status and past assessment and cleanup activity. The web link also provides contact information for the EPA Project Manager and Community Involvement Coordinator at each site. Community members and local officials are invited to contact EPA with any comments or current concerns about a Superfund Site or about the conclusions of the previous Five Year Review.

The Superfund Sites at which EPA is performing Five Year Reviews over the following several months include the following sites.

Connecticut
Durham Meadows, Durham
http://www.epa.gov/region1/superfund/sites/durham

Old Southington Landfill, Southington
http://www.epa.gov/region1/superfund/sites/oldsouthington

Raymark Industries, Stratford
http://www.epa.gov/region1/superfund/sites/raymark

Solvents Recovery Services of New England, Southington
http://www.epa.gov/region1/superfund/sites/srs

Maine

Brunswick Naval Air Station (Federal Facility), Brunswick
http://www.epa.gov/region1/superfund/sites/brunswick

Callahan Mining Corp., Brooksville
http://www.epa.gov/region1/superfund/sites/callahan

Eastland Woolen Mill, Corinna
http://www.epa.gov/region1/superfund/sites/eastland

Loring Air Force Base (Federal Facility), Limestone
http://www.epa.gov/region1/superfund/sites/loring

Pinette's Salvage Yard, Washburn
http://www.epa.gov/region1/superfund/sites/pinette

Saco Municipal Landfill, Saco
http://www.epa.gov/region1/superfund/sites/sacolandfill

Massachusetts

Atlas Tack Corp., Fairhaven
http://www.epa.gov/region1/superfund/sites/atlas

Cannon Engineering Corp., Bridgewater
http://www.epa.gov/region1/superfund/sites/cannon

Charles-George Reclamation Trust Landfill, Tyngsborough
http://www.epa.gov/region1/superfund/sites/charlesgeorge

Fort Devens (Federal Facility), Ayer, Harvard, Lancaster & Shirley
http://www.epa.gov/region1/superfund/sites/devens

Groveland Wells No. 1 & 2 Site, Groveland
http://www.epa.gov/region1/superfund/sites/groveland

Materials Technology Laboratory (US ARMY, Federal Facility), Watertown
http://www.epa.gov/region1/superfund/sites/amtl

New Bedford Harbor, New Bedford
www.epa.gov/nbh

PSC Resources, Palmer
http://www.epa.gov/region1/superfund/sites/psc

New Hampshire

Somersworth Sanitary Landfill, Somersworth
http://www.epa.gov/region1/superfund/sites/somersworth

South Municipal Water Supply Well (Five Year Review Addendum), Peterborough
http://www.epa.gov/region1/superfund/sites/southmuni

Troy Mills Landfill, Troy
http://www.epa.gov/region1/superfund/sites/troymills

Rhode Island

Stamina Mills Inc., North Smithfield
http://www.epa.gov/region1/superfund/sites/stamina

West Kingston Town Dump/URI Disposal Area, South Kingstown
http://www.epa.gov/region1/superfund/sites/wkingston

Vermont

Burgess Brothers Landfill, Woodford and Bennington
http://www.epa.gov/region1/superfund/sites/burgess